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WEDNESDAY MARCH 3 1999

France and Germany
Adjusting post-war pact to a post-Emu Europe
Page 15

Monetary policy
Why are the Fed and the ECB looking the wrong way?
Personal View, Page 14

Food retailing
Stocking up for millennium mayhem
Page 12

FT-IT Monthly Review
The struggle for survival in an IT-dominated world
Separate sections

WORLD NEWS

Kosovo Albanians dismiss hardliner who thwarted peace

Rebel commanders of the ethnic Albanian Kosovo Liberation Army have dismissed Adem Demaci, a powerful hardliner who prevented their delegation from signing a peace agreement last week. **Page 16**

Chirac moves to woo euro-sceptics
President Chirac of France took the unusual step of delivering a letter to the country's parliament in a move seen as aiming to win over euro-sceptics on the left and right to his European vision. **Europe, Page 3**

Banana war sanctions face delay
The US was faced last night with the prospect of delaying today's imposition of trade sanctions against the European Union in their banana row. **Page 16**

Germany faces possible strikes
The German economy is facing disruption after trade unions representing almost 500,000 banking and clerical workers walked out of pay talks and threatened to limit overtime. **Europe, Page 2**

Japan jobless highest for 50 years
Japan's jobless total rose to 2.98m, its highest level for half a *century and 25 per cent higher* than a year ago. **Asia, Page 6**

Russia presses for IMF deal
Mikhail Zadornov, Russia's finance minister, warned that Russia may run out of hard currency reserves needed to repay foreign debt unless it can quickly clinch a deal with the International Monetary Fund. **Europe, Page 2**

Barak pledges Lebanon pull-out
Ehud Barak, leader of Israel's opposition labour party, said Israeli troops would quit Lebanon within a year if he were elected prime minister in May. **International, Page 4**

Italy backs UK on social model
Tony Blair, British prime minister, received warm backing from his Italian counterpart for a call to modernise Europe's "social model". **Europe, Page 2**

Threat to World Bank watchdog
The *World Bank board* is to vote on a controversial proposal that could cripple the only independent agency empowered to investigate complaints from people damaged by Bank projects. ***International*, Page 4**

Next trade talks 'to help poor'
The next negotiations on liberalising world trade should be a "development round" to benefit poor countries, Clare Short, Britain's international development secretary, told the UN Conference on Trade and Development. **World trade, Page 7**

New WTO proposal for China
Charlene Barshefsky, US trade representative, is to offer a new proposal this week to advance China's negotiations to enter the World Trade Organisation. **World trade, Page 7; Albright braves Beijing, Page 6**

Warning over Asia petrochemicals
A leading businessman in Asia has warned that it may take four years for excess petrochemical capacity in the region to be absorbed by the world market. **Asia, Page 6**

BUSINESS NEWS

Second purchase in offing as Alcatel unveils $2bn deal

Alcatel, French telecoms equipment company, announced the $2bn purchase of US data switching specialist Xylan Corporation and is close to unveiling another big acquisition. **Page 17**

Baan Company, Dutch business software producer, expects a "difficult year" after making a 1998 loss of $315.2m compared with profits of $77.2m the year before. Baan shares slipped 6.5 per cent in Amsterdam. **European companies, Page 18**

Rentokil Initial of the UK missed its own growth targets last year, boosting earnings per share by 18.4 per cent instead of the 20 per cent it aimed for. The business services group's shares shed over 9 per cent. **UK companies, Page 22 and Comment**

Deutsche Bank changed tack in its efforts to create a pan-European bank by announcing plans for its own branches in France. It aims to combine a small branch network with modern connections such as phone and internet banking. **Page 17**

RJR Nabisco is soon expected to announce total or partial disposal of its tobacco business. Analysts believe a sale could fetch more than $6bn, though the group may also be considering a joint venture. **Page 17**

Western banks may reduce their exposure to big Japanese clients for fear that Japanese companies *are inadequately prepared for the* Year 2000 computer bomb and could face severe liquidity problems. **Asia-Pacific, Page 6**

Bacardi-Martini, the world's fourth largest spirits group, could consider a public share offering in the next few years to finance acquisitions. **Page 17; Lex, Page 16**

Brazil's Real slid to a new low despite central bank intervention. The bank began to sell dollars at R$2.10 soon after the market opened, stepping in again later when the Real hit a low of R$2.22. It closed at R$2.15 in *London*. ***Currencies*, Page 25**

TRW's acting automotive division head Jim Remick said there were no early plans for the Cleveland-based company to sell its automotive division, which is expanding through the purchase of the UK's LucasVarity. **US companies, Page 20**

Micron Electronics shares dropped 19 per cent to $11¾ after the computer maker warned of slowing PC sales. **US companies, Page 20**

Australian Stock Exchange, the first stock market to be listed on its own boards, said record trading and the market's strength in the second half of 1998 helped interim net profit to A$23.4m (US$14.5m), almost double the prospectus forecast. **Asia-Pacific companies, Page 19**

World Equity Markets
The latest trends and data from more than 50 national markets at a glance
Page 35

Brussels to unveil code against fraud and nepotism

Rules for conduct aim to tackle cronyism in EU's executive body

By Neil Buckley in Brussels

The European Commission will today announce a code of conduct aimed at stamping out cronyism and fraud inside the EU's executive body, but the reforms may not be enough to silence critics in the European Parliament.

The 20 commissioners – appointed by EU member states to head the permanent bureaucracy in Brussels – will in future have to declare their spouses' jobs, and spouses' and children's financial interests, as well as their own.

They will also be barred from *holding public office outside the* Commission. Edith Cresson, education commissioner and a former French prime minister, remained mayor of the French town of Châtellerault for three years of her Brussels term.

But the Commission also seems to want to silence criticism by its *members. Under the code*, they will be banned from writing regular articles for newspapers or magazines. In 1995, Ritt Bjerregaard, the Danish environment commissioner, caused uproar by publishing a critical diary of her first six months in Brussels.

The code is the first step in a *reform package promised by Jac*ques Santer, Commission president, to avert a censure motion in January by the European Parliament, the EU's directly elected assembly, after a series of allegations of fraud and nepotism. A successful censure would have sacked all 20 commissioners.

A five-member "committee of experts" is now investigating the fraud claims and is due to report on March 15. Parliament has warned that if the inquiry finds individual commissioners guilty of wrongdoing, it will press Mr Santer to sack them. MEPs have also threatened to reintroduce their censure motion if they decide the Commission is not doing enough to tackle fraud.

It was not clear last night whether parliament would consider that the Commission had passed its first big test. Referring to rumours that it was having difficulty agreeing parts of the code of conduct, Pauline Green, leader of parliament's largest group, the Socialists, warned it would be "well advised to find the political will".

"The reforms are designed to kill off any possibility of unpalatable practices in the Commission," she said. "These include allegations of a 'jobs for the boys' scandal in which friends and family or people from the same town or region as senior officials land plum jobs or contracts."

Edith Müller, the German Green MEP and anti-fraud campaigner, will today call for commissioners to have to seek approval from their peers for friends or family to be given jobs in the bureaucracy. Any approvals would be published.

Parliament's concerns follow *revelations that a friend of Mrs* Cresson was given a lucrative EU research contract, and that relatives of other Commissioners work in the administration – although all were recruited following proper procedures.

Today's code stops short of banning or placing conditions on commissioners' friends or associates being given jobs - but does give the Commission president powers to investigate.

Hewlett-Packard plans to spin off instruments arm

By Louise Kehoe in San Francisco

Hewlett-Packard, one of the largest and oldest companies in California's Silicon Valley, plans to spin off the instruments businesses created by its founders, in a move aimed at enabling it to focus more on its core computer operations.

The split will create a company with annual revenues, based on fiscal 1998 figures, of $7.6bn, making it the world's largest manufacturer of test and measurement equipment.

It will also include HP's medical equipment, chemical analysis and components operations. Hewlett-Packard, with remaining annual revenues of $39.5bn, will comprise the company's core computer and printer businesses, including software, personal computers, business computers and a broad range of imaging equipment such as printers and scanners.

The split also clarifies HP's rank as the second largest US computer company, after International Business Machines. Compaq Computer, which had been claiming the second place rank, had revenues last year of $31.1bn.

Lew Platt, chairman and chief executive, said the split would be achieved in two stages. Initially, *HP plans to sell about 15 per cent* of the equity of the new company in an initial public stock offering, which bankers said would probably be the largest technology IPO in Silicon Valley history. HP shareholders would then be given shares in the new company. The process is expected to take 12-18 months.

The decision to split up the business had been an emotional one, Mr Platt acknowledged. "The measurement business is our heritage. But I am convinced it will result in two stronger and more agile companies."

By spinning off the measurement business HP will also remove operations that have been a drag on its earnings growth, analysts said.

Last year the test and measurement division was hit hard by the Asian economic slump and a downturn in sales to the semiconductor industry, and operated at a loss.

Mr Platt will continue as chairman, chief executive and president of HP throughout the transition. However, HP said it had commenced a search for a new chief executive, both within and outside HP.

The new measurement company will be headed by Ned Barnholt, currently general manager of the test and measurement division. HP said it did not expect the realignment to result in job cuts.

HP's shares gained nearly 10 *per cent on news of the realign*ment yesterday.

Lex, Page 16

Kidnap victim: Linda Adams of California escaped after being taken hostage by Rwandan rebels in Uganda by pretending to be an asthmatic. Eight other hostages were killed. Threat to Uganda, Page 4 Reuters

Bush set to confirm White House bid

By Gerard Baker in Washington

The US Republican party was yesterday feverishly anticipating an announcement from George W Bush, governor of Texas and son of the former president, who is preparing to end months of *speculation and take his first for*mal step towards a bid for the White House.

After four years of disappointment in which they have lost one presidential election, seen their congressional majority – won so dramatically in 1994 – whittled away, and felt a stinging popular *backlash against their attempt to* impeach President Bill Clinton, Republicans seemed in a mood to rally around the flag-carrier of a remarkable political dynasty.

With the first primary a little under a year away, Mr Bush was yesterday poised to announce the establishment of a "presidential exploratory committee", the prelude to a formal declaration of his candidacy for next year's election, expected to come some time this spring.

"The idea of Governor Bush is a sensational idea," said James Leach, a moderate Republican who is chairman of the House Banking Committee. "It fits the country well."

Almost from the moment he was elected governor of the country's second largest state in 1994, Mr Bush has carried the hopes of many Republicans that he would one day win back the White House his father lost.

While other candidates for the *party's nomination have been* shuttling back and forth for months between the important primary states, Mr Bush has studiously avoided campaigning.

His poll ratings have grown ever higher, comfortably overtaking not only his party rivals, but also Al Gore, the incumbent *vice-president and Democratic* party front-runner.

A steady stream of influential Republicans from all over the country have made the long pilgrimage to Austin, Texas, in the last few months, virtually pleading with Mr Bush to run.

Last week, 12 of the nation's 31 Republican governors publicly declared for him, an unprecedented show of support for someone not officially a candidate 20 months before the election.

One governor was another member of the Bush dynasty, George W's brother Jeb, elected governor of Florida last autumn.

Republicans taxed, Page 8

Avis cools on Smart car prone to winter skids

By Haig Simonian, Motor Industry Correspondent

DaimlerChrysler has suffered another embarrassing blow to its reputation for safety after Avis Europe, the car hire group, had to fit new tyres to the controversial Smart two-seater car after recent accidents in Germany.

The decision follows the safety problems suffered by DaimlerChrysler's A Class small car in late 1997. A Class sales had to be suspended for six months after it was shown to be unstable in the extreme "Elk test" manoeuvre.

Similar deficiencies revealed in later tests on the Smart forced Micro Compact Car, the DaimlerChrysler subsidiary behind the vehicle, to postpone its launch by six months to last October.

Since then, Smart sales have been sluggish after largely critical reports of the car's ability and performance in the motoring press. Sales in France, one of MCC's biggest target markets, were below 900 units last year.

Sales have been further hit after German accidents revealed the Smart could be dangerous in snow and ice. Some drivers have lost control on slippery roads, revealing a stability problem because of the Smart's short wheelbase and rear-wheel drive.

After the incidents, MCC *announced plans to upgrade the* Smart's traction and gearbox software to prevent excessive acceleration. An MCC official denied the car was unstable, but said it was up to customers "to use appropriate tyres and drive appropriately for the conditions".

Avis is one of the biggest cus*tomers for the Smart, having* ordered 4,000 vehicles for use in seven continental European countries this year. Although the rental group has not criticised the car's basic engineering, it has demanded models be refitted with special winter tyres. Availability of vehicles has been *severely restricted.*

Apart from hiring Smarts, Avis also participates in a scheme with MCC allowing owners to swap their vehicles for larger cars for limited periods.

Last month, MCC cut its forecast for Smart deliveries this year from 130,000 to 100,000. Its French factory has the capacity to make 200,000 a year.

WORLD MARKETS

STOCK MARKET INDICES			GOLD		
New York: lunchtime			**New York: Comex**		
Dow Jones Ind Av	9402.75	(+77.97)		$286.9	(285.9)
NASDAQ Composite	2315.82	(+20.84)	**London:**	$288.15	(285.85
Europe and Far East			**DOLLAR**		
CAC40	4048.63	(+16.58)	**New York: lunchtime**		
DAX	4804.02	(+19.71)	£	1.6149	
FTSE 100	6061.3	(+0.4)	€	0.9152	
FTSE Eurotop 300	1209.25	(+1.37)	SFr	1.4583	
Nikkei	13,921.06	(-300.59)	Y	120.30	
US LUNCHTIME RATES			**London:**		
Federal Funds	4.8125%		£	1.6158	(1.6078)
3-mth Treas Bills: Yld	4.68%		€	0.9151	(0.9146)
Long Bond	94 3/16		SFr	1.4578	(1.4558)
Yield	5.63%		Y	120.285	(119.425)
OTHER RATES			Tokyo Close		Y 120.08
UK: 3-mo Interbank	5 3/16%	(5 11/32%)	**EURO (London)**		
UK: 10 yr Gilt	109.61	(same)	$	1.0928	(1.0934)
Euro Euribor	3.116%	(3.094)	£	0.6762	(0.68)
Germany: 10 yr Bund	97.46	(97.49)	Y	131.442	(130.573)
Japan: 10 yr JGB	99.96	(100.0)	SFr	1.5930	(1.5917)
NORTH SEA OIL (Argus)					
Brent Dated	$10.46	(10.295)			

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Euro-zone target price €2.15. Prices in local currency as shown

Bahrain	Din1.300	Iceland	IKr285	Oman	OR1.75
Belgium	BFr90(€2.23)	Italy	L3900(€2.01)	Poland	Zl 10.00
CIS	US$4.00	Jordan	JD1.75	Portugal	Esc320(€1.60)
Croatia	Kn19.00	Kuwait	KWD0.750	Qatar	QR13.00
Denmark	DKr16.00	Latvia	Ls1.65	South Africa	R16
Estonia	EKr34.00	Lithuania	Lt21.00	Spain	Pta325(€1.95)
Finland	Fmk13.00(€2.19)	Lebanon	LBP3,500	Sweden	SKr20.00
France	FFr14.00(€2.13)	Luxembourg	LFr90(€2.23)	Switzerland	SFr3.50
Gibraltar	£0.85	Morocco	Dh18.00	Syria	S£80.00
Greece	Dr500	Netherlands	Fl 4.80(€2.18)	Tunisia	Din2.000
Hungary	Ft380	Norway	NKr19.00	UAE	Dh13.00

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CONTENTS

Full contents and Lex: back page

WORLD NEWS
EUROPE

Italy backs UK on social modernisation

By Peter Norman in Milan and Robert Peston in London

Tony Blair, the British prime minister, yesterday received warm backing from his Italian counterpart for a call to modernise Europe's "social model", but Mr Blair's effort to make his mark on the course of the European economy otherwise drew scant applause.

Speaking shortly after the UK prime minister addressed the congress of the party of European Socialists in Milan, Massimo D'Alema, the Italian prime minister, said: "I agree with Tony when he forcefully underlines the need for innovation. We must find a dynamic social model."

He also echoed Mr Blair's call for Europe to learn from America's economic success. "The extraordinary capacity of the US to create wealth and work" should encourage Europe to create a younger, more dynamic society, he said. Mr Blair's speech had, however, attracted only limited applause.

The UK prime minister was clapped most enthusiasticly when he recalled the traditional support given by the left of centre to fighting poverty in the third world.

The passages on the US and structural reform passed in silence, as did Mr Blair's reference to himself "as the leader of a country that has declared its intention to join the euro in the future, provided the conditions are right to do so".

Mr Blair indicated he now believed he had a right to influence the debate over the euro-zone economy, after announcing last week that the UK was planning to participate in European monetary union. "I can say this with perhaps greater justification than before to those now in the euro-zone," he said. "The euro can be a force for stability but it is only a foundation."

Mr Blair called for "real economic reform that tackles the fundamental supply-side weaknesses of the European economy" as an essential corollary of monetary union.

He also delivered a mild reproof to neo-Keynesian policies now in vogue in Germany when he said: "Demand-side policies of economic management are a necessary but no longer sufficient guarantee of economic prosperity for all."

Mr Blair made the case for deregulation after having made clear the UK could not join the euro without a move in this direction.

Mr Blair could take some comfort from the implicit support of the congress for his message on modernising Europe's welfare systems when it approved a policy document to stimulate jobs and growth.

The document, overseen by António Guterres, the Portuguese prime minister, declared that the "European social model must be modernised in order to survive".

For some delegates, however, Mr Blair's references to US success seemed to be a rhetorical flourish too far. "You cannot simply compare the US and Europe," declared Christa Randzio-Plath, a German Social Democrat member of the European Parliament.

Shift on EU economic policy urged

By Peter Norman in Milan

When António Guterres, the Portuguese prime minister, was asked at the end of January by fellow European Union Socialist and Social Democrat leaders to investigate the scope for boosting employment, few expected a comprehensive statement on economic policy for Europe.

That, however, is what they got in his ambitious plan, adopted yesterday by the congress of the party of European Socialists. It speaks of "a major shift which shall lead to higher employment, sustainable economic growth and new prosperity shared by all".

The programme calls for "a new mix of monetary, wage, fiscal and tax policy" aimed at improving "the potential for innovation and growth, and to create a more active and inclusive society".

In an interview with the Financial Times, the 49-year-old Portuguese leader said the policy represented something new for Europe. "If you look at macro-economic policy in its two dimensions of short-term demand management and longer term structural reform, we never had any effective co-ordination except to create the conditions for the euro by reducing budget deficits and inflation," he said. "The new policy is to answer the question: is there any room for co-ordination of economic policies to allow for more growth and employment."

The policy re-establishes "firmly the goal of full employment" that was orthodoxy in the 1960s. It unashamedly favours Keynesian demand management policies because these can "partly reduce unemployment". But it also incorporates many lessons of the 1980s and 1990s. Only because Europe has low inflation and its national budgets under control, can a new policy mix be directed towards a "new trajectory of growth and employment".

Mr Guterres defined the macro-economic levers as budgetary policy, incomes policy and monetary policy. The problem for left-of-centre policymakers is that Europe's governments only control budgetary policy. The "social partners" – employers and trade unions – determine wage policy while the independent European Central Bank sets interest rates.

The policy re-establishes firmly 'the goal of full employment'

The policy document tries to circumvent these difficulties. European monetary policy, it says, "should support the general economic policies of high employment and sustainable growth in the EU" but this must follow "without prejudice to the objective of price stability and with respect for the independence of the ECB".

The ECB, therefore, has to be helped to reach growth supporting interest rate decisions by governments keeping budgets under control and both sides of industry reaching wage settlements that "relate to productivity".

"We believe there is a margin for manoeuvre for monetary policy," Mr Guterres said. But distancing himself from the frequent remarks of Oscar Lafontaine, Germany's finance minister, he said "it would be wrong to appear to ask the [European] Central Bank" to cut interest rates.

There is also agreement that budgetary and tax policies could help combat unemployment by being directed more to public investment. "If you can increase the intensity of investment in every country at the same time, you have a multiplying effect," Mr Guterres said.

The strategy has a "European dimension", including possible EU issues of international bonds to absorb excess saving and finance projects and a "European initiative for the information society," proposed for launch in June, to close the technological gap with the US.

The document does not ignore the supply side of the economy, although it marks a sharp break with the so called neo-liberal policies of the 1980s, which sought to cut unemployment through structural economic reforms and by pushing down costs.

The policy incorporates ideas of educational reform to provide opportunities for all that are associated with Tony Blair, UK prime minister.

How far the policy influences governments, however, will become clear only at the EU's June summit in Cologne, where European leaders are due to agree a European employment pact.

Germany faces possible strikes

By Tony Barber in Frankfurt and Ralph Atkins in Bonn

The German economy last night faced disruption after trade unions representing almost 500,000 banking and clerical workers walked out of pay talks and threatened to limit the amount of overtime devoted to solving millennium computer problems.

This is Germany's third wage dispute in less than a month and represents an additional burden for an economy that shrank in the final months of 1998 and is showing only feeble signs of recovery this year.

The HBV banking, insurance and retail workers' union and the DAG union for white-collar employees rejected an employers' offer, under which their members would have received a one-off payment of DM850 (€434, $477) each covering the first half of this year. Describing it as "a slap in the face for the bank workers", the unions stuck to their demand for an annual wage increase of 6-6.5 per cent.

Klaus Carlin, the HBV's chief negotiator, said the unions would hold a strike ballot and meanwhile recommend employee councils limit overtime worked by staff to help banks fix the millennium bomb – caused by some software being unable to recognise dates after 1999. If approved, strikes could start on March 17-20.

Meanwhile, Germany's chambers of industry and commerce (DIHT) warned yesterday that business expectations had become markedly worse and that industry had lost faith in the government's ability to represent its interests.

DIHT's latest business survey showed improved business confidence last autumn had been short-lived. Hopes that a pick-up in domestic demand would compensate for slower export growth had been dashed, it said. Investment plans had also been redrawn because of fears over tax plans. Franz Schoser, DIHT director, said: "Companies have the impression that many economic policy decision makers lack an understanding of the interests of business."

German trade unionists have been emboldened to hold out for pay rises well above the annual inflation rate of 0.2 per cent since the IG Metall union, representing 3.4m engineering and electrical industry workers, won a wage increase of roughly 4 per cent two weeks ago. The Social Democrat-led government agreed last weekend to a 3.1 per cent pay increase for 3m public sector workers.

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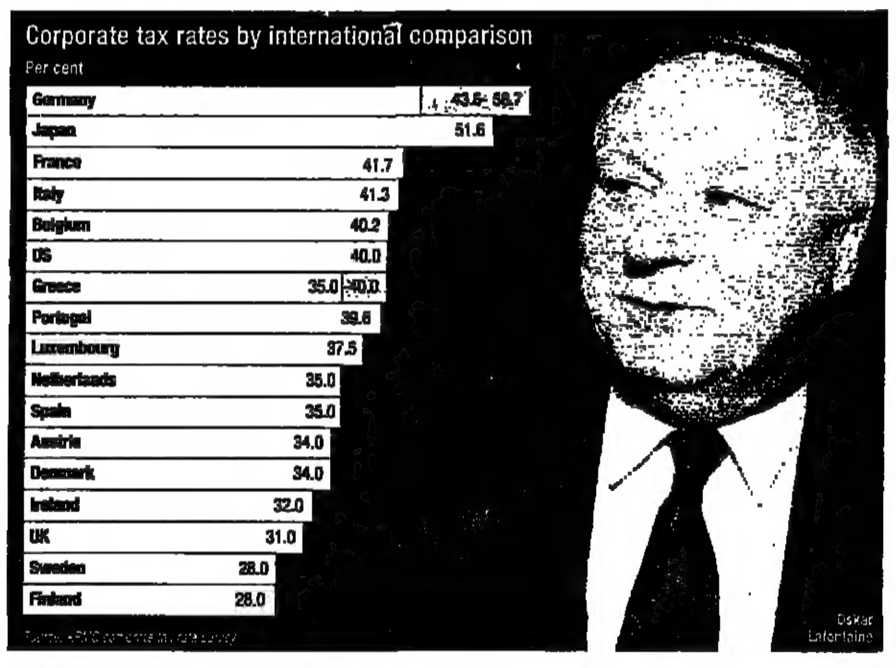
Lafontaine fights a rearguard action to defend tax ambitions

Ralph Atkins and **Uta Harnischfeger** on why 'socially just' reforms have been met by howls of protest from industry



It has been a fast moving battle. Since September's federal election, Oskar Lafontaine, finance minister in Germany's centre-left government, has conceded a succession of changes to his "socially just" tax reform plans.

"You could measure the half-life of the information we are getting with an egg timer," says Guido Kreitz, tax specialist at the German chambers of industry and commerce.

But this week, Mr Lafontaine has made it clear that he is drawing a line and sticking firmly to his ambition of a tax package that predominately favours workers and families.

To the fury of industry, it will be business that largely picks up the bill through a significant widening of Germany's tax base and the closing of loopholes. Threats by companies such as Allianz, Europe's largest insurer, or RWE, the energy-based conglomerate, to switch activities abroad were "not credible and will not have the desired effect," *Mr Lafontaine says.*

The interests of business have taken a back seat in the finance minister's deliberations. After the election, he moved quickly to implement pledges of his Social Democratic party. Immediate legislation, costing about DM11bn (€5.6bn, $6.2bn), raised child and personal allowances and cut the basic rate of income tax from 25.9 per cent to 23.9 per cent from the start of this year.

Only now, however, is the second stage of Mr Lafontaine's tax reform legislation moving through parliament. This includes further cuts in tax rates; corporation tax on retained earnings will drop from 45 per cent to 40 per cent this year; the basic income tax rate will fall to 19.9 per cent by 2002.

But for many businesses these gains will be offset by the planned widening of the tax base, bringing Germany in line with international standards. Mr Lafontaine sees little scope for a substantial "giveaway" – and particularly not for industry which he argues benefited from tax reforms under the previous government of Helmut Kohl. The DM20bn net "giveaway" envisaged will not take effect until 2002 – and even then it will be mostly private individuals who benefit.

Hence the howls of protest from industry. Energy companies and the insurance sector will be hit particularly by rules reducing the scope for building reserves and introducing tougher valuation rules on reserves that are held. The insurance industry reckons its burden is about DM20bn, the utilities about DM25bn – although both figures are hotly disputed by the finance ministry.

Other sectors are also hit. The property market will be affected by "minimum taxation" rules limiting the scope for writing off losses against other income (a measure designed to stop rich private individuals circumventing tax altogether).

Altogether about 80 measures contribute to the so-called "counter-financing" planned by Mr Lafontaine. A separate "ecological" tax bill will increase energy taxes, with the funds raised used to cut state social security contributions.

The battle is not over. Mr Lafontaine has already retreated on some fronts. Last month, he announced changes designed to help small and medium-sized companies. These included easing rules on depreciation, which would have hit book traders, and reversing value added tax rule changes which would have affected company canteens. Further changes, helping shipbuilders, wind energy and venture capitalists, were made Monday by the Bundestag finance committee.

Industry's best hope may lie in the next stage of the planned tax reforms. Largely at the initiative of Chancellor Gerhard Schröder, an independent commission is due to report to the finance ministry before the end of April on proposals for capping all corporation taxes at a 35 per cent from next year.

This would be a substantial victory for industry. The German association of machinery and industrial equipment makers, for example, argues that its members – mostly mid-sized companies of between 50 and 200 employees – end up paying a marginal tax rate of 60 per cent. Apart from Japan, that is one of the highest marginal tax rates in the world, it says.

However, a 35 per cent ceiling is an ambitious goal. Indications so far suggest the commission is likely to propose a unified corporation tax on distributed and retained earnings of about 25 or 28 per cent. But the additional local "trading tax", levied at about 10-12 per cent of company profits, is likely to be retained because of its importance to municipal government finances.

Even this might be too much for Mr Lafontaine. Leaks from the committee have met a frosty reaction from the finance ministry. Mr Lafontaine argues there is already a DM30bn "structural deficit" in the federal finances. He may insist on further "counter financing" measures to offset corporation tax changes.

For companies, the hope of a internationally-competitive 35 per cent ceiling on corporation taxes – and of significant net benefits for industry – may have to remain a long term goal.

See Editorial Comment

Italy examines poor state of economy

By James Blitz in Rome

The Italian government is this week taking a hard look at the state of the country's economy and public finances after the publication of disappointing data for 1998.

The main concern of Treasury officials is the slow rate of growth in the Italian economy, with continuing signs of sluggish consumer demand, poor business expectations and a worsening export performance.

It was reported this week that growth in 1998 was just 1.4 per cent, the worst for any of the euro-zone economies. Growth this year is expected to show little improvement, with analysts' expecting between 1.5 per cent and 2 per cent.

The poor growth outlook compounds concern about public finances. Despite lower than expected tax receipts, Italy was last year able to keep its budget deficit at 2.7 per cent of gross domestic product, inside the 3 per cent ceiling under the Maastricht criteria.

The Treasury reached this figure because it benefited from reduced payments on the country's debt during a declining interest rate cycle. But one-off factors (including a technical shift in the timing of pensions payments) also played an important role and these will not be repeated this year.

Treasury ministers therefore admit that if growth were to remain as low as 1.5 per cent in 1999, the deficit figure could end up around 2.6 per cent. This would overshoot significantly the 2 per cent target that Carlo Azeglio Ciampi, treasury minister, has repeatedly pledged to Brussels for 1999.

Mr Ciampi is to publish revised growth and deficit forecasts this month. But one minister admitted yesterday that a 2.6 per cent deficit-to-GDP ratio this year would be "unacceptable". In such an event, the Treasury would take supplementary measures to rein in spending, probably using delegated powers to tighten cash controls rather than pushing a supplementary budget through parliament.

Beyond this, few senior political figures believe the government of Massimo D'Alema is in a position to take policy measures that boost economic growth.

Italy's bid to qualify for the euro pushed its overall tax burden in 1997 up to 44.8 per cent of GDP, the highest level this decade. That burden came down just 1.2 per cent in 1998 and further tax reductions are deemed essential to boost growth.

However, given Italy's debt problems, such reductions would need cuts in structural spending, mainly involving the country's huge pensions burden. Mr D'Alema, whose government relies on a complex coalition of parties, has ruled out any such move.

A reform of Italy's labour market is also deemed essential to boost entrepreneurship. Here too, Mr D'Alema's government has been unable to make progress in the face of trade union reluctance.

Italy therefore looks set to continue relying on low interest rates – and lower debt servicing – to keep public finances under control. Mr Ciampi originally pledged to keep the country's primary surplus – the difference between revenue and spending excluding interest payments – at 5.5 per cent of GDP in 1998. Reliance on interest payments allowed the primary surplus to drop last year to 4.9 per cent. Italy and the rest of Europe are in a cycle of slow growth, so a slippage in the primary surplus may be justified. But Antonio Fazio, Bank of Italy governor, recently asked how Italy's public finances would look once the international economy grew again and interest rates rose.

HARD CURRENCY RESERVES RUNNING LOW

Russia urges IMF to reach accord soon

By John Thornhill in Moscow and Arkady Ostrovsky in London

Mikhail Zadornov, Russia's finance minister, warned yesterday that Russia might run out of hard currency reserves needed to repay foreign debt in the next few weeks unless it could quickly clinch a deal with the International Monetary Fund.

But Mr Zadornov stoutly defended the government's performance since Russia's devastating financial crash last August and appealed to the Group of Seven industrialised nations to provide political backing for IMF support.

"The main conclusion of the last few months is that we have preserved the macro-economic situation while reducing wage arrears," he said. "But it is clear that without this agreement [with the IMF], the whole conception of our budget policies will be destroyed and we will be in a very different economic and political situation."

He said that without IMF support, the government would be forced to print more money.

In a briefing with foreign journalists, Mr Zadornov said the government had confounded pessimists by sticking to tight monetary and fiscal policies since August. Although tax revenues had plummeted to 6.5 per cent of gross domestic product in September, they had markedly improved since then. The government had also accepted the IMF's advice to delay further cuts in value add tax and excise duties to strengthen the public finances.

Mr Zadornov said the government was now targetting a primary budget surplus (before interest payments) of more than 2 per cent of gross domestic product this year – compared with a 1.5 per cent primary budget deficit in 1998 – representing a "colossal" swing in fiscal policy.

The monthly inflation rate, which reached 11.6 per cent in December, had also been brought down to 3.8 per cent in February by tightly controlling money printing. Also, Russia had signalled its willingness to honour its foreign debt obligations as best it could by repaying $5bn between October and March.

One of the few economic liberals left in the government, Mr Zadornov said Russia would try to satisfy the IMF's outstanding objections but argued it would be counter-productive to make promises it could not keep.

Mr Zadornov also said the deadline for foreign investors to accept a proposed restructuring of the government's frozen domestic GKO debt would be extended until the end of April.

NEWS DIGEST

TURKISH-KURD CONFLICT

Police arrest 19 after violence over Ocalan

Turkish police yesterday arrested 19 people they believe carried out a wave of Istanbul fire bomb attacks in protest at the capture of Abdullah Ocalan, leader of the PKK Kurdish guerrilla group.

Mr Ocalan's supporters have staged a number of violent protests across Turkey's mainly Kurdish south-east and in the Kurdish quarters of several cities since Turkish forces arrested him last month. Police said 15 were responsible for five bomb attacks on state premises and for organising illegal demonstrations. Another four were detained in connection with a bomb attack on an Istanbul cafe at the weekend in which three people were injured.

Mr Ocalan, leader of the Kurds' campaign for self-rule in Turkey, faces trial on treason charges, and may face execution if convicted. **Reuters, Istanbul**

POLISH GOVERNMENT RESHUFFLE

Move weakens EU approach

A Polish government reshuffle has weakened the country's team negotiating membership of the European Union. The move comes amid growing concern in Brussels that delays in preparing farm and regional development programmes could jeopardise Poland's chances of drawing on EU pre-accession funds next year.

Jerzy Buzek, the prime minister, said yesterday he would sack nine deputy ministers in his cabinet office. These include Piotr Nowina Konopka, one of the main members of Poland's EU negotiating team. The move is the first stage in a wider reshuffle expected next month.

Meanwhile, Rolf Timans, head of the European Commission delegation in Warsaw, has told a conference organised by the EU's committee of the regions he is concerned Poland is falling behind in preparing drafts of regional development and farm restructuring plans. He said the drafts must be sent to Brussels by the middle of this year if Poland is to become eligible for pre-accession aid funds worth more than €500m ($550m) a year from 2000.
Christopher Bobinski, Warsaw

MILLENNIUM BOMB

Russia plays down dangers

Russia yesterday attempted to play down the threat posed by the millennium computer bomb to its military installations, while saying it had earmarked less than $4m to tackle the problem. Major-General Vladimir Dvorkin, chief of the Fourth Central Research Institute of the Defence Ministry of the Russian Federation, rejected recent suggestions by US military analysts that his country's defence systems might be jeopardised at the start of 2000.

But he said just Rbs85m ($3.7m) had been put aside for new hardware and software, and that a programme of testing would not be completed until October.

Nato and other western advisers have recently stepped up their technical support to Russia in an effort to prevent problems. One said: "Our assessment is that Russia is way behind on the curve." **Andrew Jack, Paris**

WORLD CUP SPONSORSHIP

Mastercard renews as sponsor

Mastercard yesterday became the third sponsor to renew its four-year World Cup sponsorship with Fifa, soccer's governing body. Mastercard, the world's second biggest payment card company, is expected to spend well over $100m in the next four years in sponsorship fees and marketing in the run-up to the 2002 tournament in South Korea and Japan. Sepp Blatter, Fifa's president, is confident the 14 official sponsors for the next World Cup will have signed up by the end of the year. But General Motors and Mars, two of last year's sponsors, have failed to renew their sponsorship amid indications from industry that the cost of sponsoring the world's largest sporting event has risen substantially. **William Hall, Zurich**

MOVE TO HEAL RIFT AMONG SUPPORTERS

Chirac aims to win over French euro-sceptics

By Robert Graham in Paris

President Jacques Chirac of France yesterday took the unusual step of delivering a letter to the country's parliament in a move seen as aiming to win over euro-sceptics on the right and left to his vision for the European Union before June's European elections.

The letter, read to both houses of parliament by their speakers, was officially linked to a debate on ratification of the Treaty of Amsterdam, which France looks set to be the last to approve. But commentators said the presidential message appeared to be aimed mainly at healing serious divisions among his right-wing supporters over lists for the European elections.

This is only the second time since Mr Chirac's election in 1995 that he has used his constitutional privilege to address parliament in this way.

Although the letter was cleared with the Socialist-led government of Lionel Jospin, Mr Chirac's vision of Europe is subtly at odds with the prime minister's. "Our ambition must be to transform the success of the euro by co-ordinating our economic policies, lowering taxes and giving priority to employment," he says. The Jospin government's priorities are to promote growth and employment, but tax cuts are not high on its agenda.

The six-page letter balanced forthright endorsement of closer EU integration with a nationalist commitment to defend French interests. On the argument over reducing agricultural spending in the EU, which has put France at loggerheads with its partners, he said: "With the financing of the EU and the future of agricultural and regional policy in play, France is firmly defending the contract and principles on which Europe was built."

He also came out strongly in favour of national parliaments playing a greater role in monitoring the activities of the European Commission. By so doing he may be hoping to convince the right that France has not surrendered too much sovereignty.

Mr Chirac also made an implicit reference to divisions among his own supporters.

The right remains badly split, however. Mr Chirac's Gaullist RPR party has adopted as head of the European candidates' list Philippe Séguin. His pro-European sentiments remain in doubt following his refusal to endorse the Maastricht Treaty and have prompted the centrist UDF party to break away from an alliance with the RPR to fight the European elections alone.

Mourners gather in the Austrian village of Galtuer yesterday for the funeral of residents killed in two avalanches that struck the ski resort last week. The disaster killed 38 people, mostly holidaymakers from Germany, Denmark and the Netherlands Reuters

Rules aim to smooth internet trade

Inside the market

By Emma Tucker in Brussels

With its sweeping disregard for international borders the internet may do more to bring the single market to Europe's consumers than any number of European Commission rulings.

But using a computer to shop around the European Union for bargains is not as easy as it sounds. Different national laws on everything from business practice to consumer protection create uncertainty for anyone brave enough to order, for example, a car insurance policy over the web.

So far Brussels has watched from a distance, wary of drawing up proposals that risk being out of date before they have even been translated into the EU's 11 official languages.

But now it has drawn up a handful of directives to make life easier for businesses hoping to offer products across the EU via the internet and consumers keen on internet shopping.

One such proposal is a draft law regulating distance sales of financial services. Although still in its infancy – it has yet to go to the Council of Ministers or to have a first reading by the European Parliament – it is already under fire.

Miles Russel, of Direct Line, the UK company that sells insurance, mortgages, savings and personal loans via the telephone, says the plans discriminate against distance providers by giving the impression that "we are somehow more risky from a consumer point of view".

Using a computer to shop around the European Union for bargains is not as easy as it sounds

He says this is grossly unfair. "The experience of the UK's pensions mis-selling scandal, which involved only traditional face-to-face providers, proves that such fears are unfounded."

In fact, the directive was not drawn up on the basis of a hunch that distance sellers are less honest than their face-to-face counterparts. It was the result of the Commission's decision to harmonise the consumer protection rules for telephone and internet sales of financial products.

Without harmonisation the Commission feared a single market stood little chance of progress. There was a risk that member states would use their own consumer regimes, which vary greatly, to deter sellers from other countries.

The Commission has opted for relatively stringent rules.

The proposals include a 14-day "cooling-off" period for people buying insurance policies, during which they can withdraw from a contract with no penalty. For pensions, mortgages and life assurance, it is 30 days.

This would put UK providers such as Direct Line at a disadvantage compared with their face-to-face rivals, who for pensions and other services need only comply with a 14-day withdrawal period.

The problem for UK-based distance sellers is that if they want to sell their products throughout Europe with less hassle than at present, they will have to accept the demands of other member states. Many have much tougher consumer protection rules than the UK, particularly in distance sales – still rare in most EU countries.

The Commission defends its proposals. "This is better than what they have now," it says. "Either you do nothing and leave companies that want to penetrate neighbouring markets to grapple with 15 different regimes, or you harmonise the rules."

The European Mortgage Federation has also criticised the proposals. It says they will increase the cost of mortgage credit because lenders will try to protect themselves against possible variations in rates during the cooling-off period.

"Variations of 20 basis points in the space of 15 days are not uncommon," it says. This is an issue not just for mortgage providers but for any market sensitive service.

At such an early stage service providers still have everything to play for. The parliament is expected to put forward plenty of amendments, although these may not be to their advantage.

Some consumer crusaders in parliament want the directive to serve as a minimum standard, with member states able to beef up their own consumer regimes. This could ultimately harm consumer interests by placing too many restrictions on the companies that could undercut traditional providers.

Romania to sell off first utility

By Joe Cook in Bucharest

Romania's first utility privatisation gets under way tomorrow when Bucharest city hall will invite private investors to tender for a majority stake in Regia Generala Apa Bucuresti, the capital's water utility.

As many as 10 international utility operators are thought to be interested in bidding to provide Bucharest's more than 2m inhabitants with water and sewerage services. Bucharest city hall, which is being advised by the International Finance Corporation, the private lending arm of the World Bank, expects to raise about $70m from the deal.

The winning bidder will acquire a stake of up to 70 per cent, via a capital increase, in a joint venture with Bucharest city hall. The joint venture company will hold a 25-year concession to manage the city's water production, distribution and sewerage services.

The tender process has been devised to "maximise transparency and competition," said Michele Positano of the IFC.

On March 8 bidders will begin examining the utility's books, and an estimated half dozen "pre-qualifiers" will be announced by mid-April. These will be required to negotiate and submit signed contracts with the city hall when they submit their final bids. The bids will consist of the pre-prepared contracts and the financial bid, with the winner likely to be the operator that offers the lowest tariffs. The contract is expected to be awarded by July 1.

RGAB is debt free apart from a World Bank loan of $25m but in desperate need of investment. Its network of 70,000 metered connections has a high leakage rate which has pushed water demand to more than double that in western Europe. Improved and more accurate metering is also needed.

The winning bidder will be required to bring Bucharest's water quality up to European Union standards, to meter 100 per cent of connections within a given time and to guarantee burst pipes be repaired within 24 hours. An independent regulator will monitor the operator.

A local group's survey of Bucharest water consumers indicates 80 per cent of respondents believe privatisation will improve services. Mr Positano said the survey suggested people were "willing to pay more for their water subject to better service".

Gibraltar rejects 'parasite' charge

By David Buchan, Diplomatic Editor

The Madrid government could close loopholes in its tax regime if it thought they were being exploited by Spanish offshore companies in Gibraltar to evade tax in Spain, according to the British colony's governor.

Abel Matutes, Spain's foreign minister, yesterday returned to his campaign against Gibraltar as a "parasite" living off its neighbour's economy. He said the colony's failure to comply with European Union directives on transparency of company accounts encouraged tax evasion and laundering of drug money to Spain's detriment, and added that restrictions would remain on Gibraltar's border until it fulfilled EU rules.

But Sir Richard Luce, the governor, expressed incredulity over Madrid's earlier claim that because of the activities of some 53,000 Gibraltar-registered companies, Spain was losing Pta1,500bn (€9bn, $10bn) in tax revenue each year. Sir Richard said this was more than the total deposits in Gibraltar banks.

He said only 28,000 Gibraltar-registered offshore companies had shown themselves to be active by filing a return in the past year. Companies House in Gibraltar, which handles incorporation in the colony, said the much higher Spanish figure included dormant and defunct companies.

But the Gibraltar governor said if Spain felt its citizens were using Gibraltar for tax evasion, "they can regulate and close loopholes" in their own tax regime.

Sir Richard said Gibraltar had "the highest standards" on financial regulation and law and order, and asked why Spain was "making allegations without substantiating them". He argued that where Spain had shown evidence, Gibraltar had acted.

The colony has had UK-style money laundering legislation for the past three years. Last year Robin Cook, the UK foreign secretary, cited Gibraltar as a "benchmark jurisdiction in terms of legislative and regulatory standards" for other UK overseas territories.

The governor conceded there had been "a bad patch in the mid-1990s", with Gibraltarian involvement in drug smuggling by fast boats from Morocco to Spain.

INTERNATIONAL

Threat to powers of World Bank watchdog

By Nancy Dunne in Washington

The World Bank board next month is to vote on a controversial proposal which could cripple the only agency empowered to investigate complaints from people hurt by Bank projects.

The independent inspection panel was created in 1994 as a reform meant to make the Bank more publicly accountable. Its function is to investigate complaints where the Bank's failure to enforce its own loan conditions on borrowing governments has harmed the environment or displaced populations.

Danny Bradlow, a law professor at American University who has been monitoring the panel, said the new proposal represented "a significant weakening" of the panel.

If adopted, the proposal, which has been put forward by a working group of six executive directors, would make the position of the panel "untenable".

Since its inception at the behest of the US Congress, the panel has become increasingly polarised and controversial.

Executive directors from lending countries favour its activities, while directors from large borrowing countries have become incensed about what they see as foreign interference in their sovereignty.

Although the rich countries, holding the majority of the Bank's stock, can outvote the borrowers when the inspection panel seeks authority for an investigation, most Bank decisions are made by consensus. At the insistence of the clients, the panel's activities have been increasingly curtailed.

Of the 14 complaints filed with the panel, which mainly relate to environmental degradation, population displacement and accounting standards, only one has resulted in a full investigation. The panel recommended reviews of four others projects, and in most of the remaining cases, the Bank staff proposed "action plans" to try to improve the projects.

Last year a six-member Working Group of executive directors was appointed to resolve the stalemate over inspections. Its proposals, contained in a four and a half page report, have drawn fire from non-governmental organisations. The board has agreed to address the criticisms at an unprecedented meeting with NGOs on March 24.

In its report, the working group said the inspection panel should continue to investigate only the failure of the Bank to insist that loan conditions be observed; Any laxity or corruption by the borrower is not in the panel's purview.

When the panel goes to inspect a project, its profile "should be kept as low as possible" and not "create the impression that it is investigating the borrower's performance," the report said.

In determining whether or not the project has damaged people in the surrounding areas or the environment, the panel is charged with comparing the results with the original conditions which existed when the project was launched. Critics say the comparison should be between the promised results and the actual results.

"We find it highly problematic that an institution such as the World Bank, which legitimizes itself by stating that its mission is to improve poor people's situations, suddenly limits itself to mainly intending to do no harm," said the German Organisation World Economy, Ecology and Development.

Kay Treakle, of the Bank Information Center, a World Bank watchdog, said: "The ironic thing about this proposal is that it threatens accountability at the Bank at a time when it is increasingly pressing governments to curb corruption and implement good governance. It would seem that if the board were serious about accountability and wanted to insure that the Bank's money is used properly, it would strengthen not weaken the inspection panel."

Tourist killings threaten to eclipse Africa's star

Uganda's economic success could be hit by the deaths of eight westerners, writes **Mark Turner**

The murder of eight tourists in Uganda is a blow to a country that has been considered one of Africa's most promising success stories.

Uganda had been counting on developing tourism to boost foreign exchange receipts and keep up the impressive economic growth of the past decade – especially as visits to Kenya have been dropping partly because of security concerns.

But the killings highlight Uganda's perennial problems on its northern and eastern flank, under pressure from several rebel movements and an eight-month civil war in the Democratic Republic of Congo, in which it and Rwanda are pitted against the Kinshasa government, Zimbabwe, Angola and Namibia.

The hundred or so rebels who crossed into the Bwindi national park appear to have been Interahamwe rebels, the same group responsible for the 1994 genocide of more than 1m Tutsis in Rwanda and who now support the Kinshasa government. They attacked in a zone previously considered as safe.

Commentators say it is likely that the insurgents were specifically targeting Uganda's nascent tourism industry and aiming to damage its international credibility as one of Africa's most encouraging investment opportunities. If that is the case, they have gone some way to achieving their end: the UK government has advised Britons not to travel to that part of Uganda, where access to rare mountain gorillas is a big draw.

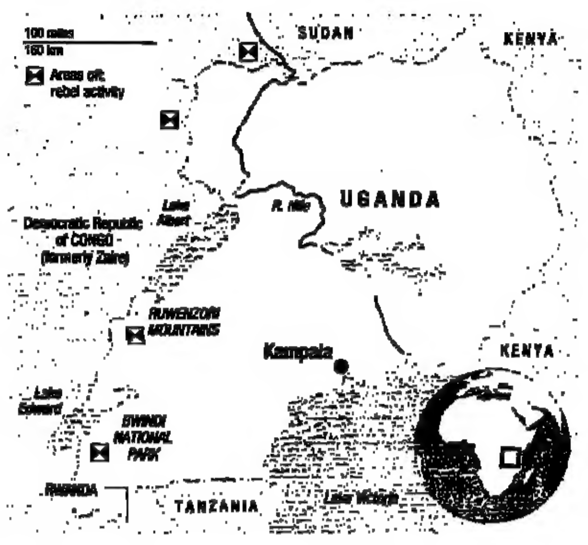
Donors and World Bank officials say that the cost could be high. "I fear that this will receive a lot of publicity and will damage the Uganda tourism industry," said World Bank resident representative Randolph Harris.

Wildlife is the main draw of a Ugandan holiday. Although tourists can enjoy water rafting and spectacular scenery, the country's strategy was to lure them first with the eastern parks. If gorilla holidays are put off limits, there will be severe doubts over the whole sector.

The irony is that Uganda's purported motive for supporting the rebellion in Congo was to ensure the safety of its eastern fringe, and to stave off the possibility of another genocide of Tutsis in the Congo. Instead, it has attracted the unwelcome attention of yet another of central Africa's roving and disgruntled militias.

The Uganda People's Defence Forces, numbering around 50,000 men, is already struggling to contain other insurgencies, including Joseph Kony's notorious 13-year-old Lord's Resistance Army, a northern-based group supported by the Sudanese government in Khartoum and which presses children into its forces.

In the west, the 1,000-strong Alliance of Democratic Forces, a Moslem group including exiled Rwandans guilty of genocide, came to life in 1996 after Laurent Kabila, the Congo president ironically brought to power by Uganda, launched a rebellion against Zaire dictator Mobutu Sese Seko.



The ADF has proved a serious problem for Rwenzori Highlands Tea, the country's biggest grower, and concerns have been raised over a big cobalt mining project in Kasese.

Luckily, rebel operations in the underdeveloped north have not proved a particular impediment to investment, but they have contributed to Uganda's large defence budget, which prompted some tough questioning at a recent donor meeting in Kampala.

Since President Yoweri Museveni and his National Resistance Movement took power in 1986, Uganda has emerged from 20 years of brutal dictatorship and economic regression to become one of Africa's star performers.

Although the country's "no-party" system, which precludes opposition parties from contesting elections, is viewed with suspicion by western governments, Uganda has consistently pursued sound macro-economic policies, reformed the armed forces, and transformed Kampala, the capital, into a pleasant place to live.

Uganda was one of the first countries to qualify for debt relief under the World Bank's Heavily Indebted Poor Country initiative. It is now the continent's largest coffee exporter and boasts considerable promise in hydro-electric power – although a potential $500m investment in a dam at Bujagali has been delayed by the lack of reform in the power sector.

But growth of 5.5 per cent in 1998 appeared to indicate a possible slowdown from previous rates closer to 7 per cent, and donors have expressed concern at a flagging – and corrupt – privatisation process.

For the time being, donors believe government assertions that it is doing all it can to stem corruption, and recently pledged more than $2bn in aid. But if Uganda does not kick-start reforms and tackle high-level graft, it may find that next year they are not so forgiving.

There are some hopes that a peace agreement in Congo may be close, as Angola deals with renewed fighting at home and Zimbabwe faces severe criticism over the cost of its support to Mr Kabila. Uganda is also committed to reviving the defunct East African Community this summer, with Kenya and Tanzania, which could help foster stability and growth.

But the Bwindi attacks and recent bombings in Kampala make it difficult for Uganda to convince investors that it offers a peaceful and stable environment.

Editorial comment, Page 15

NEWS DIGEST

MIDDLE EAST CONFLICT

Labour says it would pull Israel out of Lebanon

Ehud Barak, leader of Israel's opposition labour party, yesterday said Israeli troops would quit Lebanon within a year if he were elected prime minister in May. Mr Barak, former chief of staff, and Yossi Beilin, the party's foreign affairs expert, said their strategy included renewing talks with Syria, and possibly stationing international forces in southern Lebanon once Israeli forces withdrew.

The plan, slowly gaining ground among public opinion, has been criticised by officials in Benjamin Netanyahu's government.

They argued it would leave Israel's northern borders vulnerable to attack from the Shia Islamist Hizbollah movement which has been trying to oust Israel from south Lebanon, which it has occupied since 1978. But Mr Beilin said that if Israel pulled back to its international borders, it would have the right to defend itself if attacked.

Mr Netanyahu's administration has been criticised by both the left and right wing press for doing little to revive talks with Syria, or to spell out its long term strategy in southern Lebanon. Last year, Mr Nenanyahu said Israel would unilaterally withdraw, but only after Lebanon gave security guarantees. **Judy Dempsey, Jerusalem**

LOCKERBIE SUSPECTS

Gadaffi says deal is near

Libyan leader Muammer Gadaffi said yesterday that a deal to put on trial the two suspects in the Lockerbie bombing was near, adding that he had no doubt about the fairness of a Scottish court.

"I ask the Libyan people to trust South African President Nelson Mandela and Saudi Arabia, who asked us to accept [the deal]," he added. "It is not possible to doubt the fairness of a Scottish court, because it would not be exposed to pressures from intelligence services nor to a British government order over whatever ruling. It would not include jurors and would sit in the Netherlands not in Britain," he added. Abdel Basset Ali Mohamed al-Megrahi and Lamen Khalifa Fhimah are accused of the 1988 bombing of a PanAm airliner over Lockerbie, Scotland, that killed 270 people. **Reuters, Tunis**

IRANIAN ELECTION

Reformers 'take 70% of vote'

Reformers allied with Iranian President Mohammed Khatami maintained their lead in a high-profile race for Tehran's municipal authority, with partial results yesterday showing rival religious conservatives trailing.

According to the latest returns, reformers were also leading in several other big cities, including Shiraz in the south and Sari and Ardebil in the north. Pro-Khatami candidates have already won in the southern city of Isfahan, Iran's most politicised city after Tehran.

Even in Mashhad, Iran's second largest city and a conservative stronghold, reformers made headway and were expected to win four of the 11 seats. The English-language Iran News said Mr Khatami's supporters had swept 70 per cent of the seats throughout the country, with the conservatives scoring only 20-25 per cent. **Reuters, Tehran**

Editorial comment, Page 15

BILATERAL DISCORD SENIOR BEIJING OFFICIAL UNLIKELY TO TRAVEL TO TAIPEI AMID CONCERN OVER MAINLAND MISSILE DEPLOYMENTS ACROSS THE STRAIT

Tensions threaten Chinese visit to Taiwan

By James Kynge in Beijing and Mure Dickie in Taipei

The highest-level visit from China to Taiwan since the two split in 1949 is set to be postponed.

The move comes amid concerns over mainland missile deployments across the strait from Taiwan and other issues of bilateral discord.

A senior official in Beijing who deals with cross-straits affairs said yesterday that Wang Daohan, head of the Association for Relations Across the Taiwan Strait (Arats), was now unlikely to travel to the island in the spring, as agreed by the two sides last year.

"He is busy until May, and May itself looks difficult for him. Whether or not he will be able to make it to Taiwan sometime after May is a matter for negotiation," said the official, who declined to be identified.

The visit had been intended to show that a measure of stability has returned to one of Asia's most dangerous relationships.

The expected delay in Mr Wang's visit serves to underline the fact that Taipei and Beijing remain as far apart as ever on the volatile issue of reunification.

The main sticking point over Mr Wang's visit is that China wants it to herald the start of "political talks" aimed at eventual reunification, but Taipei sees no need to discuss unification at this stage.

In fact, Lee Teng-hui, Taiwan's president, misses few opportunities to emphasise the island's separateness from the mainland – in stark opposition to Beijing's insistence that there is only one China.

In an interview this week, Mr Lee said Taiwan must be recognised as an independent and sovereign political entity.

Taiwan says it is prepared to talk to Mr Wang on subjects less controversial than unification, such as fishing disputes, the repatriation of hijackers and other "technical" issues.

A recent US Pentagon report that China has been building up its missile batteries aimed at intimidating Taiwan has done nothing to further the cause of mutual trust and understanding which Taipei regards as necessary for any political dialogue to begin.

Nevertheless, neither side wants to give the impression that it is the one dragging its feet. The US has consistently encouraged a dialogue between Beijing and Taipei as a means to reduce tension in the region.

Officials at Taiwan's Straits Exchange Foundation (SEF) announced yesterday that Li Yafei, deputy secretary general of Arats, would lead a delegation to the island on March 17-19 to prepare for Mr Wang's visit.

However, similar trips by Arats officials in recent months have failed to produce any concrete results.

"We hope that the two bodies can complete preparatory discussions as soon as possible to finalise Wang Daohan's itinerary, allowing him to visit Taiwan in the spring," the foundation said.

Albright braves Beijing visit hit by disputes

By James Kynge in Beijing

Madeleine Albright, US secretary of state, put a brave face yesterday on a visit to China which was marked by sharp disputes over human rights and a US plan to deploy an anti-missile defence shield in Asia.

Mrs Albright acknowledged that US-China ties had not lived up to the "constructive strategic partnership" that President Bill Clinton and Jiang Zemin, his Chinese counterpart, had trumpeted during their summit in Beijing last year. But, she added, the relationship had attained some maturity and depth.

"Our relationship, while still well short of this goal, has reached the point where it can withstand even sharp disagreements," she said.

Her comments were intended to show that in spite of disagreements, Washington's bedrock policy of engagement with China was not in danger of revision.

Growing concern in Congress over the transfer of military-use technology, and a 99-0 vote in the US senate last month to sponsor an anti-China resolution at this month's meeting of the UN human rights commission in Geneva, have contributed to questions over the durability of Washington's engagement with Beijing.

"Slow but steady work over a number of years, on a number of subjects, with a number of long and extensive meetings has yielded remarkable advances in the policies and practices of China," said James Rubin, Ms Albright's spokesman.

Mrs Albright in Beijing: mixed messages — Reuters

However, the apparent lack of progress on a range of bilateral issues did not augur well for a crucial visit to the US in April by Zhu Rongji, the Chinese premier.

The chances of a breakthrough on any of the items included in a US "wish list" for Mr Zhu's summit seemed slim.

A US official, who declined to be identified, said one hope was that China might reverse its opposition to a UN peacekeeping force in Macedonia, vetoed by Beijing in apparent outrage over Macedonia's recognition of Taiwan, China's rival. But foreign diplomats said that any movement by Beijing on Macedonia was unlikely, given the sensitivity of the Taiwan issue.

Another item on the "wish list", that China end a crackdown on dissidents that began last year, seemed more achievable, but China's ratification of the United Nations Covenant on Civil and Political Rights is considered highly unlikely, given that China signed the document only last year and the process of ratification is usually a lengthy one, the diplomats said.

It was also unlikely that China could agree to join the Missile Technology Control Regime (MTCR), which it has agreed to study. Chinese officials said that the prospect of Washington deploying a theatre missile defence system in Asia would constitute a US violation of the MTCR, hardly a sound basis for China's accession.

Japan's jobless at highest for 50 years

By Gillian Tett in Tokyo

Japan's jobless total rose to its highest level for half a century at 2.98m in January, 25 per cent higher than the same period a year ago.

The rise left the jobless rate running at 4.3 per cent for the third consecutive month, also a post-war high for Japan, the Japanese government said yesterday. The figures are low by international standards but will fuel concern that Japan's current downturn could intensify this year.

Yesterday's data showed that the level of people who had left jobs "involuntarily" had reached a record high of 1m, with most of the new unemployed found in the 35-55-year age group.

The Bank of Japan has released minutes of its monetary policy board meeting on January 19 showing most of the nine board members could not see any prospect of an economic recovery; some feared a deflationary spiral developing.

This contrasts with recent assertions by the Economic Planning Agency (EPA) and other government bodies that the economy is rebounding. The EPA forecasts growth of at least 0.5 per cent in fiscal 1999.

Lawrence Summers, US deputy Treasury secretary, openly disputed the EPA's assessment last week by warning that the prospects for Japan's economy now seemed "worse than several months ago".

The bank's comments are being closely watched because of a growing tussle over the direction of Japanese economic policy.

The Japanese government has already agreed to implement at least Y24,000bn ($202.2bn)-worth of tax cuts and spending packages this year, with the aim of pulling the country out of recession.

However, some officials and diplomats fear that this will not boost consumer spending because the Japanese public is now so nervous about job prospects.

Japanese politicians have recently urged the bank to reflate the economy by buying more Japanese government bonds. But the bank opposes this, and last month its board decided to lower the overnight call rate, the key short-term money market rate, from 0.25 to 0.15 per cent instead.

The bank yesterday pushed this rate down to a new record low of 0.05 per cent by flooding the markets with Y1,800bn surplus liquidity, sharply higher than the surpluses seen recently.

Some economists suspect this suggests the bank wants to see interest rates of almost 0 per cent.

Western banks fear Year 2000 in Japan

By Alexandra Nusbaum and Gillian Tett in Tokyo

Western banks are considering reducing their exposure to large Japanese clients because of growing concern that Japanese companies are insufficiently prepared for the Year 2000 problem, it has emerged.

Western banks fear that Japanese companies in all sectors could face severe liquidity problems because their own computer systems, or those in related companies, may fail as computers misread the Year 2000, when represented by "00", as the year 1900.

Western bankers are reluctant to talk publicly about their concerns because they fear they could face repercussions from Tokyo which insists that appropriate measures are under way to avoid a crisis.

However, alarm will be fuelled by the US Senate's special committee on the Year 2000 technology problem, released yesterday, which ranked Japan's national level of preparation in the third of four "tiers". This puts Japan on a level with countries such as India, Kenya, Venezuela, and Turkey. The US, Britain, Australia and Canada were in the first tier, or most prepared.

The American Chamber of Commerce in Japan had already warned the Japanese government that the Japanese financial industry was particularly vulnerable to the millennium bomb crisis.

Japan operates on an imperial calendar primarily and only secondly on the western calendar, which has stoked fears in the west that the failure to tackle the Year 2000 problem is a deeply embedded cultural one.

The Ministry for International Trade and Industry says most large industrial and financial companies are now Year 2000-compliant, and it is now testing most trading and settlement systems.

The Financial Supervisory Agency, the banking watchdog, has also warned that it will suspend operations at financial companies that have inadequately prepared for the millennium bomb. A senior FSA official said: "I am confident that most large Japanese banks will have no problems with Y2K. The only remaining issue is their contingency plans. We have inspected some western banks and found that the situation was worse."

However, these steps have not yet allayed foreign concern, says Christopher Wells, head of the ACCJ financial committee. Although western bankers believe that most large Japanese banks will be Year 2000 compliant, there is deep concern about closely related subsidiaries and clients. There is also particular concern about the situation in non-financial sectors such as the utilities. "People are going to have to start cutting credit lines and reconsidering who they do business with," said Mr Wells.

Bad debt makes up 44% of Thai bank lending

By Ted Bardacke in Bangkok

Bad debt in Thailand's tottering banking system accounted for 44 per cent of all commercial bank lending, or Bt2,400bn ($64bn), at the end of last year, the central bank said yesterday.

The figure, amounting to more than half of Thailand's GDP, is in line with forecasts of private rating agencies and investment banks and gives credence to projections that bad debt could eventually peak at 50 per cent of total lending.

Just three months earlier, non-performing loans were 38 per cent of total bank lending. The biggest increase came at the country's five state-owned banks, whose bad debts as of December were 62.5 per cent of loans, compared with 55 per cent at the end of September.

Non-performing loans at the eight privately-owned banks were 42 per cent of outstanding credit, up from 37 per cent at the end of September. Foreign bank branches had much lower levels of non-performing loans – 9.9 per cent of total lending, up from 7.5 per cent three months earlier.

Central bank officials said the growth rate of non-performing loans had begun to slow and that debt restructuring – which can turn a non-performing loan into a performing one after three months of renewed payment – should help bad debt levels peak this quarter. Recent cuts in minimum lending rates by Thai commercial banks, which now charge less than 10 per cent, the lowest level in decades, have helped debt restructuring.

Yet Thai banks are required to make provision for additional loans that are being repaid but held by customers who have defaulted on other debts. High provisioning needs are pushing banks to put available cash aside for potential losses instead of making the new loans needed for Thailand to begin an economic recovery.

Another avenue would be for the banks to raise new capital but controlling shareholders have been slow to do so for fear of diluting their ownership, credit rating agency Fitch IBCA said yesterday.

Asia's excess petrochemicals 'may take four years to absorb'

By Mure Dickie and Peter Montagnon in Taipei

One of Asia's leading businessmen has warned that it may take three or four years for excess petrochemical capacity in Asia to be absorbed by the world market.

The warning from Wang Yung-ching, 82, founder of Taiwan's Formosa Plastics group, contrasts with more optimistic predictions from International Monetary Fund and other western officials of a slow recovery later this year.

Mr Wang, whose company is the world's largest polyvinyl chloride (PVC) producer, blamed the sector's trouble on reckless expansion of capacity in south-east Asia earlier this decade.

As a result, producers had dumped product on the market and prices had fallen by 35 per cent over the past two years. "In the past, they didn't have much management experience," he said in an interview.

Manufacturers in Thailand, Indonesia, Malaysia and Singapore had increased capacity dramatically. "These greenhorns, they know nothing about industry, they know nothing about business," added Paul Chiang, Mr Wang's executive assistant.

Petrochemical product prices were unlikely to fall much further, Mr Wang continued. He saw a period of volatility ahead.

Some producers would have to cut production because they were now selling at prices that did not even cover the cost of feedstock. Even a small amount of oversupply could upset the market price structure.

In Taiwan, by contrast, the output of the state-run petrochemical industry had never exceeded 1m metric tonnes and had stayed below domestic demand, said Mr Wang, whose business empire is involved in businesses ranging from plastics to semiconductors.

Even the 1.5m tonnes-a-year output of the groups' new refinery and petrochemical complex in central Taiwan would be for its own use, he added.

Analysts said that part of Mr Wang's irritation with south-east Asian producers might reflect his own frustration at being prevented by the Taiwan government from expanding his company's own output in China.

Formosa Plastics, which is also moving into oil refining and power generation in Taiwan, made clear that Taipei's restrictions on large investment in China still rankled. He was a businessman who knew nothing about politics, Mr Wang said. "People have to help each other."

Taiwan premier wins easy victory in confidence vote on share tax

Vincent Siew, Taiwan's premier, easily won a confidence vote forced by opposition parties which accused him of caving in to presidential pressure to cut a tax on share transactions, **Mure Dickie reports from Taipei.**

Legislators voted 142 to 83 against the no-confidence motion, the first raised under constitutional amendments made two years ago.

Mr Siew's victory had been assured by the ruling Nationalist party's parliamentary majority, which was buttressed by support from 19 independents. However, the furore over the vote may have cost the affable premier some public confidence in his ability to stimulate the faltering economy.

Opposition politicians said Mr Siew had weakened the authority of his office by succumbing to pressure from President Lee Teng-hui to cut the 0.3 per cent tax.

CHINA AND THE WTO US SEEKS TO LIFT IMPASSE OVER ENTRY NEGOTIATIONS TO WORLD TRADE BODY

Barshefsky to put proposal to Beijing

By James Kynge in Beijing and Guy de Jonquières in London

Charlene Barshefsky, US trade representative, will offer a new proposal this week to advance China's negotiations to enter the World Trade Organisation (WTO), Madeleine Albright, US secretary of state, said yesterday.

"As Ambassador Barshefsky comes here to discuss a new proposal with the Chinese, there is a good chance that we can move the (WTO) process forward," Ms Albright said after meeting President Jiang Zemin.

It was the first time during the last few weeks of intense bilateral WTO talks that the US has mentioned a new proposal for China. Ms Albright did not give details of the US plan, other than to say that Washington was hoping "very much for increased flexibility," from Beijing.

Zhu Rongji, the Chinese premier who is due to make a key visit the US in April, indicated last month that Beijing was enthusiastic to pursue a WTO deal. But the details of what liberalisation concessions China may offer are regarded as much more problematic.

James Rubin, Ms Albright's spokesman, said that the question of China being granted a special observer status – under which it may be allowed to debate WTO rules but not vote on them – has not been raised in talks with Chinese officials, in spite of speculation to the contrary.

Any such plan would, however, be unlikely to find favour with the EU, which is concerned that such "mini-packages" could undermine entry negotiations with more than 30 other candidates, including Russia, which are also wrestling with choices every bit as difficult as those that face China.

But from the US perspective, there is considerable pressure to keep China focused on WTO entry even if it cannot be admitted before a new round starts later this year.

If China lost interest in joining the WTO, some of the impetus behind economic reform and the embrace of a rules-based foreign investment environment may dissipate. China had observer status during the Uruguay round trade talks that ended in 1993.

However, diplomats and trade officials have repeatedly warned that the gulf between Chinese and US positions on the extent and speed of Beijing's market liberalisation and tariff reduction moves remains great.

Washington is seeking greater access to China's farm sector but Beijing feels that any significant concessions on agriculture, which sustains a poor rural population of 900m, risk fomenting social instability and therefore are unacceptable. Last year, China reimposed price floors on grain and banned private grain trading.

Opposition to market access is also strong in China's telecoms sector, from which Beijing derives around 16-17 per cent of central government revenues. Financial services and distribution are also problematic.

Next trade talks round 'should help the poor'

By Guy de Jonquières in London and Frances Williams in Geneva

The next negotiations on liberalising world trade should be a "development round" designed to benefit poor countries, Clare Short, Britain's international development secretary, said yesterday.

In a speech in Geneva, she outlined a trade agenda for developing countries aimed at producing a more equitable trade system "in all our interests".

The World Trade Organisation's 134 members, three-quarters of which are developing countries, are due to launch a new global trade round when ministers meet in Seattle in the US at the end of November.

However, many developing countries are opposed to or unenthusiastic about a round because they believe that the benefits of previous negotiations have been skewed in favour of the world's rich nations.

Addressing the United Nations Conference on Trade and Development, which is helping poor countries to draw up a "positive" trade agenda, Ms Short urged WTO members to expand planned talks on agriculture and services to include other important issues for developing nations.

Agricultural liberalisation was "vital" but the round also needed to tackle industrial tariffs, government procurement, rules of origin and abuse of anti-dumping policy.

Ms Short also said more effort should be made to help developing countries meet their Uruguay Round commitments to open their markets and accept new trade disciplines. But industrialised countries too should fulfil their side of the bargain.

She called on international development institutions to step up technical assistance to poor countries, and on the WTO to review the operation of Uruguay Round agreements and if needed extend implementation deadlines on a case-by-case basis.

Multilateral co-operation on social issues, such as child labour, and on the environment, must be strengthened in ways which met developing countries' needs and did not conflict with world trade rules, the minister added.

Ms Short's remarks follow expressions of support from Brussels for developing countries' aspirations in the new trade round. These reflect a growing concern within the European Union that the round could flop without the backing of poor nations.

India, an influential voice among developing countries, has said it opposes wide-ranging trade talks until the results of the Uruguay Round are consolidated.

Other countries, while taking a softer line, have yet to be convinced of the benefits of discussing such new issues as investment, competition policy and the environment which the EU wants included.

US warns trade issues may mar Japanese visit

By Michiyo Nakamoto and Alexandra Harney in Tokyo

The US yesterday warned that a planned visit by the Japanese prime minister could be overshadowed by trade issues if Japan failed to meet its *commitment to* carry out broad-ranging deregulation of its markets.

Richard Fisher, deputy US trade representative, said yesterday that "success in this area [of deregulation] is necessary in order to have a successful meeting between Prime Minister [Keizo] Obuchi and President [Bill] Clinton," in the US in May. "We are rushing to complete this project as early as possible so that it doesn't interfere with other discussions that should take place between our two leaders," he said.

His remarks highlight US expectations that Japan will move more aggressively to liberalise its markets in the run-up to Mr Obuchi's US visit.

Expressions of frustration on the part of the US follow signs of disappointment from the European Union, which has warned that Japan's failure further to deregulate its telecoms market could mean it is in breach of its commitments under the World Trade Organisation telecoms liberalisation agreement.

Mr Fisher said that Japanese proposals on deregulation so far "fall short of the deregulation measures that were originally envisioned at the start of this exercise".

The US has made 270 deregulation requests, involving sectors ranging from telecoms and pharmaceuticals to housing and competition policy.

In the medical industry, the long period taken by the authorities to approve drugs has meant that 80 per cent of drugs that appeared in the US and EU markets in the past five years were not available in Japan, Mr Fisher pointed out.

For its part, Japan is demanding that the US deregulate its car parts market, charging that a law requiring companies to list the country of origin of parts used in cars unfairly discriminates against foreign carmakers.

The Japanese request is an unusual reversal of roles in trade negotiations between Japan and the US, particularly in the politically sensitive automotive industry. Traditionally, the US has applied heavy pressure on Japan to open its market to foreign cars and car parts.

The Japanese automotive industry is suffering from the sharpest decline in domestic demand since records began. Car and truck sales fell 12.6 per cent in 1998, forcing carmakers to curtail production, implement broad restructuring programmes, and reconsider their relationships with parts suppliers.

Japan has called on the US to abolish the American Automobile Labeling Act, a law that requires car parts sold in the US to carry a sticker describing the country of origin.

It has also called for the loosening of Corporate Average Fuel Economy regulations, which require foreign car makers to submit separate statistics on fuel economy of cars imported into the US.

While both sets of regulations are applied to US and foreign companies, they imposed an unfair burden on Japanese carmakers because of the excessive costs involved in tracing the origin of parts in Japan, according to the Japan Automobile Manufacturers Association, the leading industry group.

"It raises the question: why do foreign carmakers have to perform separate calculations? Our burden is larger than the American big three carmakers... and the number of articles we need to compile is enormous. There is also the issue of how much customers are actually looking at the labels," Jama said.

The move marks the first time the Japanese government has submitted a formal complaint in high-level trade talks about excessive regulation in the US car parts market. Jama has protested against the law since its establishment in the early 1990s, but said it was unlikely to be repealed because of strong support in the US Congress.

However, it underlines the depth of problems affecting Japan's car and component manufacturers amid the country's worst recession in decades.

Nissan Motor, the troubled number two carmaker, has been shedding its stakes in key suppliers to improve cash flow and reduce its Y2,500bn debt.

Last week, Robert Bosch became the first foreign components group to acquire control of a Japanese parts maker when it raised its stake in Zexel, a fuel injection pump manufacturer affiliated with Nissan.

Fisher: Japanese proposals fall short of the deregulation measures that were originally envisaged AP

US pushes oil companies on Caspian pipeline deal

By Leyla Boulton in Ankara

The US yesterday urged reluctant oil companies to conclude a deal to build a pipeline from the Caspian Sea to the Turkish port of Ceyhan while oil prices were low at $11 a barrel.

Mark Parris, US ambassador to Turkey, said regional governments were most likely to make maximum concessions when the project looked least attractive commercially.

"A 30-year oil project is not built on one-year price forecasts," he said. "So when will companies get more favourable terms? When they come back when prices are at $18 a barrel, will the companies be in a stronger position? The time to decide is now."

However, he added that Turkey, Europe's fastest growing energy market which has lobbied in favour of the project with the US, would also have to compensate companies for any overruns on a project Ankara estimates would cost $2.4bn

Wref Digings, director of Caspian exports at British Petroleum Amoco, said nobody in the industry was "willing to bet on a sustained" rise in the price of oil.

Tomorrow, Turkey resumes negotiations with Azerbaijan, the main Caspian exporter, and oil companies over a possible deal. Mr Parris said the project could promote stability in the Caspian region and avoid the "problematic" alternative of transporting oil and gas through Iran.

Ziya Aktas, Turkish energy minister, said that companies also had to factor into their cost calculations the heightened risk of an oil tanker accident in the Bosporus, the waterway which divides Istanbul. The waterway would see more traffic without the Baku-Ceyhan pipeline to offload extra oil from the Caspian.

Mr Aktas said that the other priority for Turkish energy policy was to promote a pipeline to transport natural gas from Turkmenistan to Turkey.

After claiming the market could also support an alternative Russian-Italian gas pipeline project, known as Blue Stream, he brushed off suggestions by the US ambassador that simultaneously encouraging multiple pipeline projects could lead to none being built.

LONG-TERM CAPITAL MANAGEMENT HOUSE OF REPRESENTATIVES BANKING SUB-COMMITTEE TO BE TOLD OF BEST-PRACTICE GUIDELINES

Hedge fund hearings likely to focus on reform

By Tracy Corrigan in New York

A congressional sub-committee on capital markets will today begin its second round of hearings on the near-collapse last year of Long-Term Capital Management, the hedge fund, with discussions likely to focus on future changes to financial market practices.

"There are some remaining concerns about what happened last September, but we covered a good deal of that on October 1 [the previous hearing]," said an aide to the House of Representatives banking sub-committee. "There is a desire to see what steps were taken subsequently and whether additional steps need to be taken."

At issue are the broader implications of the market turmoil which caused heavy losses for many financial institutions in the wake of Russia's default on its domestic debt last summer, and whether tighter regulation or legislation is needed.

A series of initiatives has been undertaken. The Basle committee of banking supervision, the international bank regulatory grouping, has already reported that most risks could be dealt with by improved standards at banks. Direct regulation of hedge funds, many of which are offshore, would be problematic.

The President's Working Group, chaired by Robert Rubin, Treasury secretary, is expected to report soon on the US regulatory perspective. Three US regulators, including William McDonough, president of the Federal Reserve Bank of New York, will testify today.

The subcommittee will also hear from Gerald Corrigan of Goldman Sachs and Stephen Thieke of J.P. Morgan, co-chairs of an industry grouping of 12 leading financial institutions preparing best-practice guidelines, expected later this year.

The grouping has set up three working parties. The first will look at internal risk management practices, including the way risk models were used by Wall Street firms. The second will look at reporting of information, internally within investment banks, by counterparties and to regulatory authorities.

The third working party will focus on industry-wide initiatives, including possible sharing of information. This is an area where there could be recommendations for legal changes, for example in the area of bankruptcy law and netting agreements.

The initiative is in part an effort by the industry to get its own house in order and forestall possibly punitive regulation. However, senior executives on Wall Street are willing to admit to errors in the run up to the Long-Term Capital crisis.

Most executives admit that there was an over-reliance on collateral put forward by hedge funds, as well as an over-reliance on their own risk models. They also concede that they did not press sufficiently hard for information on hedge funds' exposure.

TV network hopes to cash in like Monica

By Christopher Parkes in Los Angeles

The Monica monitoring industry, a media niche reserved for paparazzi and other undesirables, achieves mainstream respectability tonight when the US viewing public sits down to ABC's airing of an interview with "that woman".

The number of eyeballs fixed on the two-hour interview with grande dame Barbara Walters' *tête-a-tête* with Ms Lewinsky, will be worked into a formula which will decide how much advertisers will pay for commercial time on ABC TV stations.

Those rates will hold until the next four-week viewer-counting bout in May, when the broadcast networks will once again roll out the pick of their material in the "sweeps," a quarterly ritual census-taking among viewers.

On Thursday, Britain's Channel Four joins the process with its broadcast of the meeting between Ms Lewinsky and old-hand interviewer, Jon Snow. After that comes the international *melée* with the syndication of the Channel Four version and as Ms Lewinsky exercises her rights (ABC can show the interview only once) over her meeting with Ms Walters.

For companies lured by the possibility that Ms Lewinsky's showbusiness debut in ABC's *20/20* current affairs programme will do even better than top-rated entertainment programmes, the event represents a rare opportunity to present their products to a giant slice of the consumer market. Advertising rates, normally $8.5m for 30 minutes, will accordingly be increased for the show.

For ABC, a Walt Disney subsidiary, the world-first broadcast represents a last-gasp chance to gain ground on rivals NBC and CBS, current leaders in the February sweeps, which end tonight.

But for the television industry at large, it raises another question mark over the value of the time-honoured practice of counting eyeballs.

In May, July and November the networks will once again be under pressure to catch the public's attention when the sweeps return and Nielsen Media Research sends out diaries to its focus groups of viewers who will faithfully log what they watch and when.

Lewinsky: kiss and tell

Allen Banks, media director at the US arm of the Saatchi & Saatchi advertising company, touched a nerve last month when he asked whether it might be time for a change.

Everyone now knew the sweeps' purpose was solely to fix future advertising rates on the basis of four weeks' worth of programming into which they crammed all their best material, he told a conference.

"Wouldn't it be better for them [networks] to spread out their best product throughout the year? Wouldn't they generate bigger audiences for more weeks if they were not constrained to run their most important programmes during only 16 weeks?" he asked.

However, a new deal for viewers who overdose on repeats in non-sweep months seems some way off.

Republicans become taxed over vote-winning issue

By Deborah McGregor in Washington

If tax cuts had been American voters' top priority in the last few general elections, Bob Dole would now be president and the Republican majority in the House of Representatives would not have been whittled down to a bare minimum.

As things turned out, President Bill Clinton easily managed to resist Mr Dole's call for a 15 per cent cut across the board, and the Grand Old Party is on the defensive in the House. But the Republicans are not giving up on their cherished tax-cutting plans.

Today on Capitol Hill, Republican House leaders will call on citizens to rebel against what they say is a historically high tax burden.

Led by Dick Armey, the House majority leader, Republican leaders will be joined by more than 20 outside groups, including the National Association of Manufacturers and the National Federation of Independent Business – all of whom favour a 10 per cent cut in income tax rates.

Judging from the polls, however, Mr Armey and his colleagues face an uphill battle. It would appear that Americans, far from being outraged, maintain a decidedly sceptical frame of mind when it comes to politicians' promises of lowering taxes.

Tax cuts languish well behind revamping social security, improving education and paying off the nation's debt on citizens' lists of most-pressing issues facing the nation.

Republicans plan to make the case that they favour any and all kinds of tax relief, whether it be an across-the-board cut in rates or a targeted approach along the lines proposed by party moderates.

Americans maintain a decidedly sceptical frame of mind when it comes to promises of lowering taxes

The proposed 10 per cent rate reduction favoured by Mr Armey and other leaders would cost an estimated $360bn over five years. It has come under fire from many within the party (and without) for being too expensive and for reinforcing the view that Republicans are the party of the rich, since the lion's share of a broad rate cut would favour the well-off.

Gaining momentum is a more modest package of tax relief being sponsored by Nancy Johnson, a Connecticut Republican, with a price-tag of about $100bn over five years. It includes a proposal to reduce the so-called marriage penalty, so named because it results in married couples paying up to $1,400 more in taxes than they would if they filed as single people. Also included are provisions to increase the amount of money senior citizens could earn without losing social security benefits, tax credits for people who gave long-term care to the disabled, and an accelerated deductibility of health insurance premiums for the self-employed.

Republicans point to marginal tax rates that have crept up from a maximum of 28 per cent in the late Reagan years to close to 40 per cent today.

Federal tax revenues this year are projected to consume 20.5 per cent of the economy's output, the highest level of taxation the US has experienced since 1944, at the height of the second world war, according to Daniel Mitchell of the conservative Heritage Foundation.

The trouble is the politics of prosperity are also at work, suggesting that although gross tax revenues are up significantly, so are people's incomes. Treasury figures show the combined income and payroll tax rates for a median-income family of four are the lowest in more than 20 years.

"Tax burdens on middle-income families are lower than they've been in decades," Lawrence Summers, deputy Treasury secretary, said recently. "Those who are paying more taxes are also enjoying much higher after-tax incomes."

For Republicans, eager to find a winning political issue, it is a matter of far more than raw statistics. Tax cuts are historically the glue that has held the party together. Party elders are insisting that, polls aside, the push to cut taxes must be maintained.

"Sad to say, it is just about the only issue that people uniformly cite as a reason to vote Republican," Senator Mitch McConnell wrote in a recent memo to his colleagues.

It is sad, in Mr McConnell's view, because so far Americans generally do not share the party's zeal, at a time when Republicans are eager to repair their post-impeachment image with the people.

Trade partners troubled by Cuba

By Pascal Fletcher in Havana

Canada and Spain, Cuba's leading trade and investment partners, have expressed concern about a wave of detentions of Cuban anti-government activists, apparently timed to coincide with the trial on Monday of four opponents of the government.

Lloyd Axworthy, Canadian foreign minister, who advocates a constructive engagement policy towards Cuba's one-party communist government, said the reported crackdown was "not acceptable". Spain's foreign ministry said it was concerned about "these latest repressive actions".

The actions have been seen as the latest slap in the face to international efforts to coax President Fidel Castro into making democratic reforms.

Estimates from diplomats and dissidents of the number of activists rounded up by Cuban police over the last few days range from 45 to 100. Several dozen more are believed to have been ordered to stay at home.

Diplomats from the European Union also expressed disappointment at what appeared to be a deliberate show of force by the Cuban authorities.

"If the Cubans really want to have partners in the world, like Europe, this is not the way to go about it," one European ambassador in Havana said. "But the Cubans know that," he added.

The Cuban leadership seemed to be following a calculated strategy of keeping a tight lid on internal opposition, while trying to open up and widen its international relations.

Monday's trial on sedition charges of the four dissidents – Martha Beatriz Roque, Vladimiro Roca, René Gómez and Félix Bonne – ended the same day, without verdicts being announced.

TRADE PROMOTION TAIWAN IS ADDED AND CHINA REMAINS AS MINISTERS OVERHAUL SCHEME TO FOCUS GOVERNMENT HELP

Nine Asian nations are left off export list

By Peter Marsh in London

Nine Asian countries are to be dropped from the UK government's priority list for export promotion while Taiwan is to be added and India, Japan and China remain.

The changes will be announced in London tomorrow as part of an effort to strengthen the government's "business-friendly" credentials.

The initiative aims to set up a more targeted approach to export promotion, which is built around helping companies win business in a narrow list of "priority" countries.

Off the priority list

Burma	The Philippines
Cambodia	Singapore
Indonesia	Thailand
Laos	Vietnam
Malaysia	

The other newcomers to the list are Canada, Mexico, Poland, Hungary and the Czech Republic. These, with Taiwan, together accounted for less than 4 per cent of UK merchandise exports last year.

Opportunities for increasing exports to these countries are thought to be particularly good.

The initiative fits in with the ideas of the Export Forum – a partnership between ministers and private-sector groups – which has recommended a greater focusing of the government's export promotion budget of £220m ($352m) per year.

Ian Campbell, director-general of the Institute of Export, a professional body representing big exporters, welcomed the move.

"I have no difficulty with the south-east Asian countries being left off the list," he said.

"It's good to have a flexible approach rather than having the same list [of countries with special promotion efforts] kept the same for years."

Brian Wilson, the trade minister, told the Financial Times he wanted to encourage a more focused effort to help exporters. This would be based on aid directed to specific groups of businesses.

He was "sceptical" about the value of trade missions involving big groups of government representatives and businesspeople going to countries to talk about a wide range of commercial deals.

Britain's export promotion programme is organised jointly by the Department of Trade and Industry and the Foreign Office, which share the costs.

The export community has criticised the way in which these two bodies co-operate and a review of the scheme by Sir Richard Wilson, the cabinet secretary, has been handed to ministers. It is due to be published later this month.

It is thought to argue for greater efforts to target the UK's resources on trade promotion, stopping short of suggestions to give the job to a new agency.

The existing priority list consists of Western Europe, the US, Japan, Turkey, South Africa, India, China, Egypt and Brazil.

Think-tank to overhaul 'ethical' foreign policy

By Andrew Parker, Political Correspondent

A think-tank set up by Robin Cook, the foreign secretary, will attempt to quell the embarrassment surrounding his commitment to an "ethical" foreign policy.

The Foreign Policy Centre will today launch its mission statement and pledge to "redefine the ethical dimension introduced by Mr Cook after the national elections in 1997.

The statement argues that the UK's concept of the national interest in foreign policy has been too narrowly drawn and is rooted in the time of the British Empire.

It says new ways must be found of deciding what is right and wrong. "If the old definition of the national interest is too narrow a guide to policy, so is an ethical foreign policy which has been shrunk by the media to cover arms exports and little else," the statement adds.

Mark Leonard, the centre's 24-year-old director, believes foreign policy formulation must be subjected to the same tests as domestic policy. That involves exposing it to public consultation to ensure it has legitimacy.

Mr Leonard has just returned from Canada, where the foreign minister from the ruling Liberal party embarks each year on a roadshow to test public opinion. The most recent tour was to discover the public's views on what Canada should do with its seat on the United Nations security council.

The London-based centre is likely to stir controversy among senior Foreign Office officials because it argues that policy formulation should no longer be the exclusive preserve of officials.

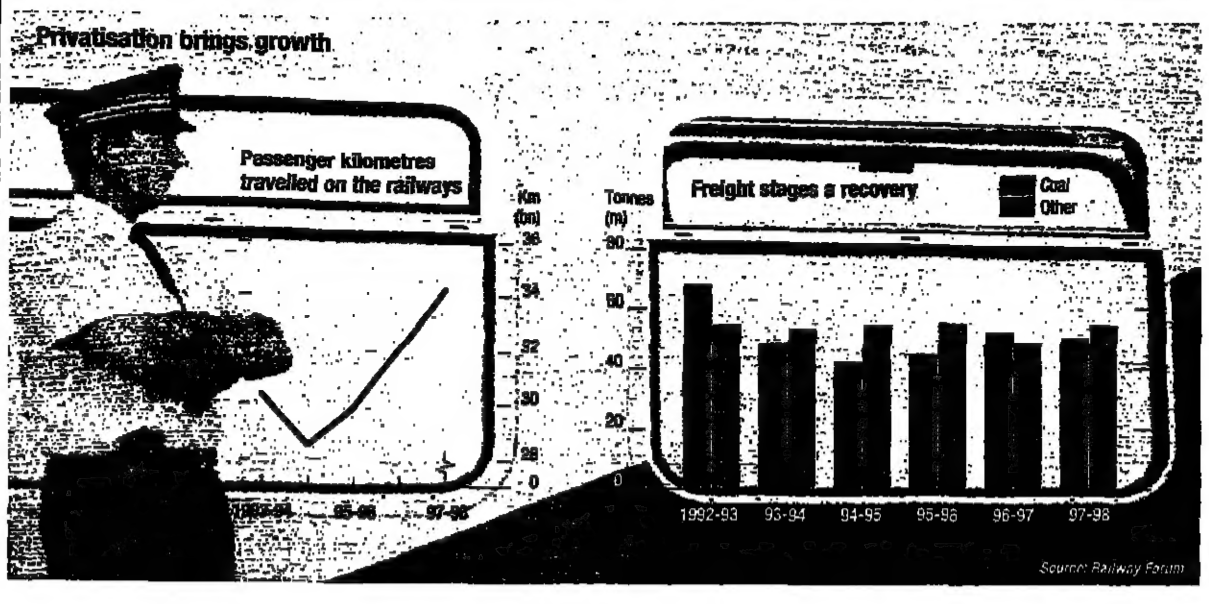
It intends to produce a report on "democratising diplomacy" and set out a long-term strategy.

The government is not committed to implementing the centre's reports but they are likely to be influential with ministers. Tony Blair, the prime minister, has agreed to be the centre's patron; Mr Cook is president.

Mr Leonard gained notoriety as the originator of the phrase "cool Britannia". It was his report for Demos, Mr Blair's favourite think-tank, that prompted ministers to seek to "rebrand" Britain.

"Our job is not to give anyone a kick up the backside," Mr Leonard said. "The purpose is to think the thoughts on foreign policy that no one else is thinking and come up with practical suggestions."

The mission statement adds: "The Foreign Policy Centre will use opinion polls, focus groups, fieldwork and the internet to contact the people that the foreign policy community doesn't usually reach."



A vanished paradise

From the Financial Times, Dec. 6 1895. A meeting was held yesterday 'to protest against the habitual unpunctuality of the trains on the London, Chatham and Dover Railway Company's services, and to urge on the company a change in the management'. The circular from which the foregoing is quoted further stated that 'a number of gentlemen using the line will give particulars of their unhappy experiences', but in this the men responsible for the statement were grievously mistaken, for of the dozen or so speakers at the meeting not a third offered any experience worth relating.

Privatised train misery terminates here, says Blair

The prime minister has pledged to improve a system that is widely seen as providing a poor service. **Deborah Hargreaves** reports

Late, dirty, overcrowded. Passengers have delivered a harsh verdict on Britain's privatised train services and most believe the system's notoriously bad performance is becoming worse.

The government agrees. Tony Blair, the prime minister, said last week that rehabilitation of the railways was one of his highest priorities. But ministers say it could take 10 years to get them back on track.

Mr Blair's government is committed to an integrated transport policy enticing travellers out of cars and on to trains and buses. But it inherited a network – sold off by the Conservatives before they were ousted from power two years ago – that was subject to growing consumer dissatisfaction.

"Part of the problem with the railways is that the growth in the number of passengers is greater than was expected. Privatisation was structured for a declining railway, but it's booming," said James Abbott, editor of Modern Railways.

When Labour came to power it quickly backed down on a commitment to buy back the network, which it made in opposition, because it would be so expensive.

Railtrack, the owner and operator of Britain's 10,270 miles of track, was sold in 1996 as one of the last grand policy acts of John Major's Conservative government. The company's share price has quadrupled since then. It makes its money by charging train operators for running trains on its track.

The government has more influence over the 25 train operating companies since most depend on subsidies. The previous government negotiated with a number of companies to take over franchises for the running of certain lines. In general, the bidder for the lowest level of subsidy was awarded the franchise.

These companies often have experience of other areas of the transport industry, such as buses or airlines. Richard Branson's Virgin group runs two routes, as does Connex, which is owned by Vivendi, the French water company. Sea Containers, headed by Jim Sherwood, runs the main line from London to north-east England.

The previous government imposed a number of restrictions and commitments on the companies to satisfy consumer concerns about privatisation. For example, many fares are regulated and the operators cannot use higher prices to choke off demand, as happened under state-ownership.

Most franchises last for seven years but companies have complained that this discourages them from investing in improvements. Many trains on busy commuter routes into London date from the 1950's and 1960's. Mr Branson and Connex have negotiated 15-year deals to give them time to invest in new trains.

The subsidies on most lines decrease over the life of the operator's contract. More profitable companies pay a premium to the government, the size of which was determined in the bidding process. Figures from the rail regulator show the average subsidy paid by the taxpayer is 8.4 pence a mile. Two groups – the operator of the Gatwick Express, the fast link between London and Gatwick airport, and Thameslink, which operates routes from the English south coast through London to the midlands – pay a premium.

The train operators say Railtrack does not have enough incentive to invest in track and signalling improvements, but the operators are penalised when trains run late because of poor infrastructure.

The franchise director found last year that punctuality was worsening on 45 of the 77 routes. It improved on 29 and three were unchanged from the previous year.

At last week's rail "summit", which brought together operators and consumer groups, the government unveiled a series of proposals for tougher performance standards and the renegotiation of train companies' franchises. The groups will be expected to report on progress.

Ministers have heavily criticised Railtrack for being more concerned with keeping its shareholders happy than spending on upgrading the system. The company says its plans to spend £17bn ($27bn) over the next 10 years is the biggest infrastructure programme of any UK company, but still less than the £37bn required if forecasts of traffic growth are to be met. The train operators and Railtrack are partly picking up the tab for years of under-investment by successive governments during stateownership.

The government's new strategic rail authority from April 1 will help plan integrated initiatives across the network. It has appointed Sir Alastair Morton, former chairman of Eurotunnel, which built the channel tunnel between France and England, to head the body. Sir Alastair said the authority's mission is to make privatisation work.

"Delivering on our promises on transport is as important to the government as delivering on its promises in all our key areas like health and education," Mr Blair told the rail summit.

Rail group offers 'cars-on-trains'

Great North Eastern Railway is to become the first train operating company to relaunch a cars-on-trains motorail service when it begins a service between London and Scotland's biggest cities at the end of this month, **Charles Batchelor writes.** GNER has announced a special £99 ($158) first-class return fare between London and the three Scottish destinations for Motorail users. Passengers will also pay £360 return for their vehicles to be carried to Glasgow and Edinburgh and £395 to Inverness. The GNER service will be operated jointly with Motorail, a company set up by Graham Steele, a businessman.

PRIVATISATION OFFICIALS BLAME LACK OF POLITICAL WILL FOR INACTION ON CONTENTIOUS PLANS

Air traffic service sell-off may be delayed

By George Parker and Michael Skapinker

The government is considering delaying contentious plans to privatise the National Air Traffic Service until after the next national elections.

John Prescott, deputy prime minister and chief transport minister, has never been an enthusiast for the proposal. He has decided he has more pressing legislative plans, including the creation of a strategic rail authority.

Officials in Mr Prescott's department say Gordon Brown, chancellor of the exchequer, is no longer insisting the sale be pushed through at the earliest opportunity. Although legal and financial preparations are continuing, officials say the idea is likely to be dropped because of a lack of political will.

John Reid, a transport minister in Mr Prescott's ministry, has argued for early legislation to allow the government to complete the privatisation when the market conditions were right. The Treasury had originally insisted on the sale, as a quid pro quo for Mr Prescott receiving Treasury backing for schemes such as traffic congestion charges and the rescue scheme for the Channel tunnel rail link.

But senior officials in Mr Prescott's department say pressure from the Treasury has eased, not least because of uncertainty about whether the sale can proceed until the £475m control centre at Swanwick is open.

The centre, which was designed to be the world's most advanced, was due to open in 1996, but is not now expected to begin operating before 2002 because of chronic software problems.

Industry executives confirm Mr Reid is keen to go ahead with Nats privatisation before the next election, but sense no such enthusiasm from Mr Prescott.

The British Air Transport Association, which represents UK airlines, last month told the government the sale should be delayed until the problems at Swanwick are resolved. It said: "The continuing delay to Swanwick must result in a less than optimum value for Nats."

Bata said plans to use the previous Conservative government's private finance initiative to fund a new Scottish control centre could also deter private investors.

Airports freed from borrowing ban

The government yesterday freed four of the UK's nine airports controlled by municipal authorities from local borrowing controls, allowing them to raise private finance for expansion, **writes Michael Skapinker.** The four airports are Manchester, the fourth busiest in the UK, Newcastle upon Tyne and Leeds-Bradford, all of which are in northern England, and Norwich in the east. They all satisfied the government that they were financially sound.

NEWS DIGEST

SHARE PURCHASES

Fund launched to invest according to Islamic law

A London investment house yesterday teamed up with Islamic scholars and a stockbroker to launch London's first religious investment fund. The Al Safa fund, named after a mountain on the road to Mecca, will invest in shares in approved companies. It will be the only London fund not to earn interest on the cash it holds – a practice forbidden by Islamic law, or Sharia. It will be overseen by a board of four Islamic scholars – one at a Cairo university, one in Canada and two in the UK – who must approve every investment before shares are bought.

"You can buy armaments, but you can't buy pork and you can't buy anything that smacks of interest, so banks are out," said Brian Tora at Greig Middleton, the stockbroker picked as investment adviser. "That is something of a problem [for investment performance] because banks are such a big sector." Companies with excessive gearing or with big cash piles earning interest will also be excluded, and derivatives – seen as a form of gambling – are banned. Al Safa was put together by City Financial Managers, an investment house, after it was approached by a Moslem financial adviser frustrated at the lack of investment opportunities for Moslems. Almost £3m was raised for the fund. **James Mackintosh, London**

NORTHERN IRELAND TRIAL

Alleged IRA sniper named

A man was named in a Northern Ireland court yesterday as the Irish Republican Army sniper who shot dead Lance Bombardier Stephen Restorick, the last British soldier killed in Northern Ireland. He was shot from a long distance while talking to a woman driver at a checkpoint near the border with the Republic of Ireland in 1997. Bernard Michael McGinn, 41, who is on trial for the murder, allegedly told police he was the back-up man and accused Michael Colm Caraher, 31, his co-accused, of being the gunman. A prosecutor said Mr McGinn had admitted making the bombs used in the IRA attacks on London's Canary Wharf in 1996 and the Baltic Exchange in London in 1992. He added that Mr McGinn had admitted joining the IRA at 15 and shooting dead a former soldier three years later. Defence lawyers said confessions allegedly made should be given "absolutely no weight" as they were taken in a "totally unorthodox manner".

SCOTTISH LAND REFORM

Ministers aid 'people' purchase

Government bodies are contributing £125,000 ($200,000) towards the community purchase of the Knoydart estate, a spectacular property in the west Highlands of Scotland. The 7,000 ha estate, which has been a source of controversy for 15 years, is being bought from receivers for £750,000. The government said yesterday that its aid was an example of its land reform policy, which is aimed at assisting community purchases of private estates.

The estate was put on the market last autumn by PWC after Bank of Scotland, believed to be owed £1.6m, put it into receivership. Its previous owners were Stephen Hinchcliffe and Christopher Harrison, who had been involved with Facia, a retail company which collapsed in 1996. Lord Sewel, the Scottish environment minister, said: "The Knoydart estate and those who live there have in the past had to endure ownership arrangements of the worst sort." **James Buxton, Edinburgh**

GENETICALLY MODIFIED FOOD

Lobby group attacks labelling

The rules on labelling genetically modified foods are confusing and full of loopholes that allow manufacturers legally to avoid listing GM ingredients, the Consumers' Association said yesterday. The association urged the government to lead a Europe-wide overhaul of the regulations and "introduce a system of accurate, meaningful and consistent labelling on all products that contain GM ingredients and their derivatives". Researchers for the association's Which? magazine investigated 32 products. They found eight were made from guaranteed non-GM sources but 24 contained ingredients likely to include GM soya and/or maize; none was labelled as containing GM ingredients. The main problem concerns soya, which provides ingredients for about 60 per cent of processed foods. Almost half last year's soya crop in the US was genetically modified (to resist herbicide); Brazil and Argentina, the other main growers of soya beans, are also moving to GM varieties. Because GM and non-GM beans are not segregated by most exporters, the genetically modified crop is finding its way into many processed foods in Europe. **Clive Cookson, London**

PRINCE CHARLES

Inquiry launched into beef

An inquiry was launched yesterday after Prince Charles and Alun Michael, chief minister for Wales, were both served banned beef on the bone at an event to promote Welsh meat. Both ate the beef in public, with the Prince declaring it "absolutely delicious". The provision of beef on the bone remains the subject of a government ban following the BSE – "mad cow" disease – scare. Event organisers said serving the beef was legal because it was a gift.

New genre takes book trade by storm

Alice Rawsthorn analyses the trend for 'narrative non-fiction' and asks whether it will be sustainable if supply expands

When a little-known US author was selling the UK rights to her history of the chronometer's invention, she received 13 rejections before clinching a deal with Fourth Estate, an independent publisher.

Since the first edition came out in August 1996, Dava Sobel's *Longitude* has sold more than 630,000 copies in the UK alone. Fourth Estate and its rivals, including some that originally rebuffed *Longitude*, have since rushed out books analysing similarly esoteric subjects in a scholarly, but romantic, style.

Several of them have become best-sellers: notably *Fermat's Last Theorem* by Simon Singh, the story of the struggle to solve a seventeenth century mathematical puzzle; Janet Gleeson's *The Arcanum*, about the invention of porcelain; and the latest success, Anna Pavord's history of the tulip, *The Tulip*.

The book trade has coined a name for the popular new genre – narrative non-fiction – and more titles in the *Longitude* mould will be published this spring, including at least two tulip books.

Narrative non-fiction books can encompass everything from botanical history to mathematical formulae but they share some characteristics. Their themes tend to be historical, though the reader gains information about the era by tracing the progress of an arcane object or phenomenon, rather than an historic figure or development.

The trend for popular science books has undoubtedly contributed to the success of scientifically-oriented titles. However, Nigel Newton, managing director of Bloomsbury, publisher of *The Tulip*, suspects the genre is also a variation on old-fashioned biographies. "The British have always been obsessed by biography," he says. "Perhaps our interest in people, the great figures who shaped history, is now transferring into an interest in things."

Other distinguishing features of narrative non-fiction are that the books often lend themselves to lavishly illustrated editions sold at premium prices – such as £25 ($40) for the illustrated *Longitude*, against £12 for the hardback and £5.99 for the paperback – and they are usually fairly short.

"I do wonder whether the demand for these compact, exquisitely-written books is partly due to people having shorter attention spans in an overloaded culture," says Derek John, a director of AP Watt, the literary agency.

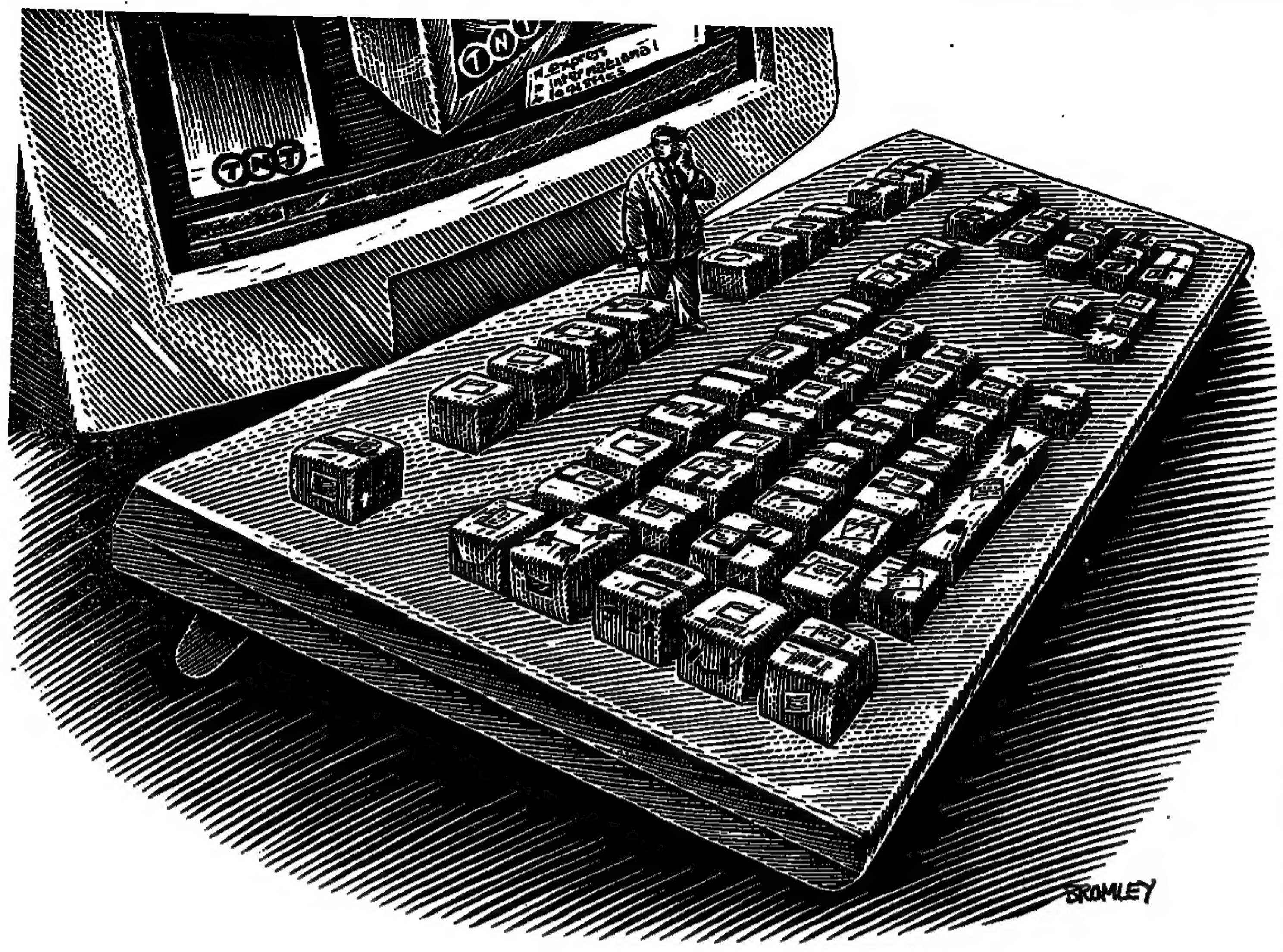
Whatever the reasons for their appeal, narrative non-fiction titles are still hitting the best-seller lists. Although, inevitably, some have not sold as well as their publishers hoped, notably Michael Allin's critically-praised *Zarafa*, the story of a giraffe's journey from the African plains to early 19th century Paris.

There are fears of further disappointments if the market becomes flooded by the plethora of quasi-scholarly books due out this spring.

"The reason why *The Tulip* is successful is because it isn't a *Longitude* me-too, but a wonderful work of scholarship," says Mr Newton. "But if too many me-toos come out, we'll end up with a repetition of the Penguin 60s Series.

"Someone comes up with a great idea, but the rest of the industry rushes in and kills it."

New leaf: narrative non-fiction encompasses everything from botany to maths — Sinead Lynch



INFORMATION TECHNOLOGY EXPRESS FREIGHT

TNT steps up web delivery

Christopher Price finds the company ready to launch a revolutionary internet service that will enable customers to track orders from beginning to end


europe.com

Sending a parcel is about to get easier. From next week, customers of TNT, the Netherlands-based express delivery company, will be able to order, send and monitor the progress of packages through the carrier's web site.

A year in development, the initiative will eventually transform the way the group conducts its business, interacts with customers and controls costs and revenues.

TNT is Europe's biggest freight and logistics company, distributing more than 2m express consignments a week worldwide.

Part-owned by the Dutch government, it has a network of 17,000 vehicles, 38 aircraft, 55 gateways and 1,000 depots. Its parent, TNT Post Group, was the world's first listed mail service company when it joined the Amsterdam market in June.

The new Quickshipper internet service will enable TNT customers to arrange the collection of consignments directly through the TNT web site. After placing their order, customers can then use the site to follow its progress to delivery.

Quicker order processing also means faster deliveries – TNT is thus expecting the service to be well received by its regular customers.

"This will allow us to push orders through more efficiently and therefore get the deliveries to their destinations more quickly," says Louis du Pre, TNT's director of marketing and sales systems developments.

The target for the company is the large proportion of its customers who already conduct their business electronically. This is highest in the Netherlands, where 70 per cent of consignments are processed electronically. In the UK, the figure drops to 55 per cent and in Germany to 50 per cent.

Most of these use TNT software on their desktop computers to process their orders. It holds out the prospect of placing an order with internet-enabled wireless devices. "Quickshipper will ultimately free customers from their PCs," says Mr du Pre.

Quickshipper is the culmination of several years of heavy investment in technology by TNT.

The development of the group's technology strategy has been driven partly by the company – keen to promote efficiency – and partly by customers, who want faster deliveries.

From an almost wholly manual system in the 1980s, TNT began to computerise its organisation by the end of the decade. Computer documentation for ordering was introduced at the same time that an EDI – or electronic data interchange – system began to link TNT with its biggest customers and suppliers.

The internet "was a natural progression for us," says Mr du Pre. "It was something we were closely developing from the start and keen to make use of."

'The service can be incorporated into the customer's own web site'

TNT established its first web site in 1996. The Price Checker part of the site was a view-only product that allowed customers to look at TNT's delivery rates and schedule. A second facility, Web Tracker, enabled customers to track shipments.

These initiatives were backed by Global Link, TNT's communications system, one of the largest corporate networks in the world.

Web Tracker's accessibility and Global Link's capacity have meant that TNT can handle more than 5m online shipment records through a single database. It also receives 280,000 hits a month and accounts for about 15 per cent of TNT's "track and trace" enquiries.

Mr du Pre believes Web Tracker's accessibility – 24 hours a day, seven days a week – is an important factor promoting customer loyalty.

TNT senior management from different regions and divisions meet twice a year to debate their IT requirements. Customer feedback is particularly valued.

A development arising from this has been the Web Collection facility, which allows customers to request a collection via the internet.

Mr du Pre says the initiative has been "highly successful". Already some 3 per cent of orders are placed through Web Collection.

"Our objective is to move all the traditional customer services to web-based functions," he says. Within three years, he forecasts, about a third of all TNT business will be via the internet.

His confidence is based on the web-based developments coming through TNT.

For example, in addition to Quickshipper, the group is introducing its Customised Services Environment, which greatly enhances some of its existing web services. CSE has four components: versions of travel information, ordering, tracking and pricing, all of which can be tailored to the customer's requirements.

For example, both regular and large customers can benefit from tariff discounts, and these will appear in the Myprice part of the CSE.

But this applies only for individual customers. Another element of the initiative is the use of passwords to ensure greater security and confidentiality.

The service can also be incorporated into the customer's own web site via an icon giving direct access to the TNT system.

"It aims to make communications between company and customers as seamless as possible," says Mr du Pre.

CSE has numerous benefits for TNT. It has low marginal costs, promotes customer loyalty, lowers costs and shortens the processing time and thus aids the delivery schedule. It is also an example of how the internet is shaping corporate thinking.

"The internet is making us more proactive," says Mr du Pre. "The battleground for the future of the express freight and logistics industry relies on a company's ability to gain a competitive edge in technology."

This series on European companies' internet strategy resumes in a fortnight because of the FT's extended UK Budget coverage on March 10.

LOUISE KEHOE
IN SAN FRANCISCO
EAGLE EYE

E-business begins to lose its gloss

They may have made a strong start, but all the signs are that the new cyber brands face stern commercial challenges

We have finally entered the "post-internet euphoria" era. It is time to stop applauding companies simply for creating "dot coms" and start asking how well they "do coms", or commerce, online.

Forget those breathless stories about how amazing it is to be able to buy this or that product straight from your desktop – there are serious questions about "e-business" and in particular some of the biggest names in the field.

Nobody is suggesting that electronic commerce will not continue to grow rapidly and have profound effects on many industries, as well as on consumer behaviour. But there are sobering signs that the new cyber brands face challenges every bit as complex as their bricks-and-mortar counterparts.

This is not just another backlash against internet hype – although that might not be such a bad thing. For the first time in their short lives, internet companies face tough issues.

For a start, the average cost of those ubiquitous "banner adverts" on web sites is declining, according to market researchers. And fewer than 1 per cent of web users click on the adverts to get more information.

That is very bad news for a lot of web publishers who have based their business plans on rising advertising revenues. The problem is not a decline in demand from advertisers for more exposure on the web. Rather, it is the almost limitless supply of "space" on web pages.

Targeted advertising, linked to "content" that appeals to certain interest groups or high-spending segments of society, is selling at a premium, but in general the rates that web sites can charge their commercial sponsors is falling.

The alternative to more adverts is subscription charges. Yet the recent decision by Slate, the high-brow "e-zine" published by Microsoft, to do away with subscription charges is another warning sign. Internet users do not expect to have to pay to read online publications, it seems, no matter how worthy their content.

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The decline in banner prices may also spell trouble for the big name "portals" that glean a large proportion of their revenues from advertising. "Not a problem," the internet bulls tell us. Transaction fees from the e-commerce links on portal web sites are rising. But these were supposed to be incremental revenues that would help the portals return profits: a novel idea for most of them.

One exception to the rule of profitless growth on the internet is Yahoo!, which trails only America Online as the second-busiest portal on the web. But Yahoo's financial report reveals that more than one third of pre-tax income for 1998 came from investments, rather than operating profits.

There is nothing wrong with investment income, of course, just so long as nobody thinks Yahoo is making all its money on the internet.

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Then there is eBay, one of the latest wonders of the internet stock boom. The auction web site's share price has defied gravity, rising almost sevenfold since its initial public offering in September.

Yet eBay's magic may be wearing off as questions are raised about alleged sales of illegal items on its web site. Late last week the company acknowledged it was "co-operating" with a federal investigation of "possible illegal" transactions on its web site. Worse, perhaps: "The company has been informed that the inquiry includes an examination of the company's practices with respect to such transactions," eBay said. That came on the heels of Microsoft's efforts to halt sales of counterfeit software on eBay; the recent decision by the auction site to end the sale of guns and ammunition; and reports of growing fraud on auction web sites.

Should web site operators be forced to take responsibility for the activities of their users? That may ultimately have to be resolved by the courts, but in the meantime it is casting a shadow over the entire field of "person-to-person" web auctions. As reports circulate of widespread internet "black market" dealing in everything from weapons to drugs, prescription medicines and Cuban cigars, US authorities are focusing increased attention on the internet.

As the neighbourhood becomes tainted by an influx of seedy operators, other online merchants are suffering by association. The problem is that they have no city council or other body to appeal to.

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I hesitate even to mention Linux in this column again after being roundly chastised for suggesting, a month ago, that this might not be the operating system for all of us.

With one large computer, or software, company after another declaring its "support" for Linux, I was beginning to feel out on a limb. Indeed, I will retreat to the point of acknowledging that Linux will become a serious alternative for corporate network servers – although not for the desktop any time soon. Still, I cannot resist the temptation to report the explanation of one of these big computer companies for its decision to offer broad support for Linux.

The official line was that customers were demanding Linux. On closer questioning, it transpired that most of these "customers" were not big corporate buyers. Rather, this computer company was responding to the growing momentum among "techies" and university computer users, who were Linux enthusiasts. These were not "money-making" customers, the computer executive admitted.

So why bother to port software to Linux? It was not a matter of investing new resources, the computer executive finally acknowledged. "Our people were porting software to Linux in their own time, at night and weekends." So the decision was whether to ignore this enthusiasm or ship products.

Much of the "open freeware" effort to debug and improve Linux, turning it into a robust operating system for network servers, has been performed by individuals.

As commercial computer and software companies jump on to Linux, the question is whether the groundswell of support from software specialists will last. Without it, Linux is just another of the several varieties of Unix, the widely-used workhorse operating system.

Share your views in the Eagle Eye discussion group on the FT web site (www.FT.com) or contact Louise Kehoe by e-mail on lkehoe@ix.netcom.com

JOHN KAY

Where size is not everything

Successful car manufacturing has involved a shift from historical market share to competitive advantage in global markets

When we talk of the effects of globalisation and scale economies on industrial structure, there is one industry that comes to mind first: the car industry.

This is, above all, where the advantages of economies of scale and global manufacturing and sourcing are leading inexorably to the concentration of output in the hands of fewer and fewer companies.

For the car industry, this is reality: for other businesses, this is the future.

Up to a point. In 1969 the three largest car producers – General Motors, Ford and Chrysler – made one in every two cars. By 1996, that had fallen to one in three. Chrysler was displaced by Toyota, but still the share of the new top three was only 36 per cent.

Nor is it only the very large American producers that have lost market share. In 1969, there were nine mega-producers, each manufacturing more than 1m vehicles a year. In 1996, there were 14. These included companies such as Suzuki and Hyundai, which did not make cars in 1969, and BMW, which did, but not in large numbers.

The share of the original nine mega-producers in 1969 was 84 per cent. In 1996, the share of the largest nine companies in the industry had fallen to 66 per cent, and the sales of the 1969 leaders had fallen further, with some having dropped out of the running altogether.

In 1996, companies with production in excess of 1m units were responsible for about 80 per cent of all sales. This figure was more or less exactly what it was in 1969. The main difference was that 80 per cent of the market was now divided between 14 companies, rather than nine.

How many car producers are there today? Hard to say, and perhaps misleading to ask.

There are companies such as Morgan, the UK sports marque, which make only a few hundred cars a year. But if we define a significant producer as one with 1 per cent of total world car sales, there were 15 significant producers in 1969, and 17 in 1996.

Yet, however one looks at it, the trend the data shows is clear. The world motor industry has been becoming steadily less concentrated. Larger participants have been losing market share, and the number of makers at all scales of production has been increasing.

Frequent alliances, consolidations and mergers, in which failing companies have been picked up by their competitors, have not been enough to offset these basic facts of market evolution.

And the trend is of long standing. The peak of concentration in the car industry was probably in the early 1950s, when three out of every four cars made in the world came from the big US producers.

There are advantages to size in the motor industry. The globalisation of markets has helped the big producers increase these advantages by international sourcing and production planning.

But these have not been the main influence on the industry's changing structure. That has been the shift from historic market share to competitive advantage as the basis of a company's success.

That is why weak national producers, such as British Leyland, were the big losers from globalisation, and why General Motors' position has been eroded and not strengthened.

Leyland's problem was not its size, except in the indirect sense that if the company had been better at making cars it would have sold more of them and might still have been independent.

It is the growth of global markets that has allowed companies such as BMW, Hyundai and Suzuki to become big participants in the industry.

Alex Trotman, the former chairman of Ford, may have been right when he tells us that there will soon be only five big producers in the world car industry. If so, it would be a dramatic reversal of the historic trend.

There were only five big producers in the world car industry in 1950 and since then the number has risen steadily.

The fundamental economics of the industry may be changing, but they are probably moving in directions that will make size less important, as manufacturing processes become more flexible and consumers more willing to pay a premium for differentiated products.

The era of immensely long runs of the same car – that began with Ford's model T and reached its climax with the Beetle and Mini – probably ended with the Toyota Corolla.

People are right to look at the world motor industry to understand the effects of globalisation. The problem is that they look at what people say is happening rather than what is really happening.

The key development is that history and market position matter less, and competitive advantage matters more.

The outcome will be greater concentration only if size is the main source of competitive advantage. There are not many industries of which that is true, and the motor industry is not one of them.

The author is the Peter Moores Director of the Said Business School at Oxford University and a director of London Economics. This column appears fortnightly.

Consolidation myth: changing structure of world car business

	1969	1996
Share of largest three producers	50%	36%
Share of largest three producers in 1969	50%	33%
Number of producers of over 1m vehicles	9	14
Share of largest nine producers	84%	66%
Share of producers of over 1m vehicles	84%	80%
Number of companies with 1% market share	15	17

Source: Author's calculations based on data from Marketing Systems

Making a pile: but fears of a rush on food for millennium celebrations could be unfounded Hulton Getty

MANAGEMENT FOOD SUPPLIES

Catering for the millennium

The thousand year party or a quiet night in? Retailers have to predict consumer behaviour, writes **Gordon Cramb**

What are you doing for the millennium? The question was being asked in workplaces worldwide even before the hangovers from last new year abated. But it is being posed most anxiously by those who supply sustenance to a consumer populace still unclear whether it should be partying – or eking out hoarded provisions.

Executives from food manufacturers and retailers across Europe met in Amsterdam recently with two main issues on their minds: how to ensure the delivery of supplies to supermarkets, and how to keep the lights on and the cold counters chilled when it gets there.

They came away largely reassured that there should be no serious collapse in the food chain. They expect to be able to get their goods through the ports and hope that, once these are unloaded, no one need be shopping by candlelight.

More puzzling, though, is how those who throng their aisles each day will behave in the final weeks of this year.

"You have to separate it out between the millennium party effect and the bug effect," says Tim Cooper-Jones of the UK's Institute of Grocery Distribution.

One British retailer is planning for what it calls a Twin Peaks phenomenon. Normally the pre-Christmas surge is followed by a more modest end to the following trading week. But demand for new year party food and drinks this time may be just as high as for yuletide fare. The territory is uncharted.

New Year's Eve falls on a Friday, allowing 2000 to start with a weekend of millennial carousing. Unless one is working, that is.

The grocers estimate that a significant proportion of their retail customers will be at work – or at least on call, ready to deal with the consequences of any failure in their employers' systems. That, if nothing else, puts a lid on the party.

A minority may opt for frugal festivities out of fear that produce, or cash from the banks, may be hard to come by in the early weeks of next year. Research by the Gartner Group shows the global retail sector lagging behind regulated industries such as banking and insurance in its preparedness, and adds that food companies have to "plan for some panic to occur".

Tony Elmer, Year 2000 business programme director of Tesco, the UK supermarket chain, maintains that hoarding is "not an issue at the moment". Supermarkets carry tens of thousands of product lines, of which many vegetables are home-produced, and much fruit is road freighted from countries such as Spain. Some airlines might not fly, but "if we had a problem with mangetout, it wouldn't be the end of the world".

'If we had a problem with mangetout, it wouldn't be the end of the world'

The Amsterdam gathering was a rare collaboration within a European industry known for the jealous guarding of trade secrets.

"Of the non-regulated areas, we are the only industry which is doing this," says Mr Cooper-Jones, Unilever's man in charge of ensuring that its frozen products survive the turn of the year. "It is a recognition that food is part of the needs list."

Not only computers but machinery containing embedded chips – including refrigeration cabinets, production equipment and alarms – are vulnerable if the semiconductor inside shuts the unit down because it suddenly thinks the year is 1900 and its task is over.

According to Gartner, it is these "embedded real-time clock programmable systems" that are likeliest to fail within minutes of the new millennium.

An IGD survey of British food and grocery manufacturers and retailers showed that smaller businesses, especially at the primary production end of the supply chain, were displaying "too much confidence and too little preparation".

As for the bigger groups, "what has emerged is a sense of interdependence – on the utility sectors, transport in its broadest sense, on government administration in areas such as customs and excise and the port authorities," says Mr CooperJones.

The food and grocery sector is not a large enough user of such services to be able to demand access to compliance check sheets at utilities.

Participants at the forum were struck by a warning from Jan Timmer, the former Philips chief who heads the Dutch government-backed Millennium Platform, that loss of electricity was the biggest remaining danger. That would work against, if not negate, in-house efforts made by companies such as J. Sainsbury, which recently shut a store in Exeter but left the premises and its operating systems intact for four more weeks. This gave its information technology experts time to test the response of a retail outlet by turning the clock forward.

Britain's top seven supermarket chains have for a year been sharing a database called Selfcheck, designed to share information on the readiness of units installed in their stores and warehouses. "If the one ticks something off, the others don't have to run those same tests themselves," says J. Sainsbury's Roger Borer. The seven swap this data via an extranet linked to, but screened from, their internal computer systems. And companies can mark which details they do not want competitors to know.

What no one yet knows for sure is how consumers will want to greet the millennium. But if there is hoarding, the supermarkets themselves will be partly to blame – some chains are planning promotions on champagne starting this autumn.

CONTRACTS & TENDERS

Republic of Uzbekistan

The International Tender for the purchase of 46.5 percent of the shares of Almalyk Mining Metallurgical Complex

ADDITION

Taking into account the requests of the bidders for purchase of 46.5 percent of the shares of Almalyk Mining Metallurgical Complex in the Republic of Uzbekistan the Tender Commission prolongs the terms and declares that the bidders are requested to submit their demands before **March 15, 1999** and following Tender Proposals till **May 15, 1999.**

The Tender Commission

The text of Notice of the International Tender for purchase of 46.5 percent of the shares of Almalyk Mining Metallurgical Complex was published on December 15th, 1998.

THE ARTS

Sibelius: a fractured portrait

Andrew Clark spends a weekend in Birmingham with the Lahti orchestra

Sibelius: an uneasy relationship between his abstract ideals and his National Romantic heart

Did Sibelius see music primarily in abstract terms, or as a Romantic Nationalist? The question was never articulated during last weekend's Sibelius festival in Birmingham, but like the groundswell in the music, it seemed to be perpetually lurking *beneath the surface.* This was the long-awaited UK debut of the Lahti Symphony Orchestra, whose recordings have transformed our view of Sibelius. It was also the first opportunity for audiences outside Finland to hear the first version of the Violin Concerto. The differences between that display vehicle and the more subdued final version are almost as revealing as Sibelius's well-documented revisions to his Fifth Symphony, which was the subject of an afternoon workshop compèred by Osmo Vänskä, the Lahti *orchestra's music director.*

It was useful to have the "Kalevala", Finland's national epic, discussed by its translator, Keith Bosley – though there was no illumination of the extent to which Sibelius saw it as raw creative inspiration. And we heard *The Wood Nymph*, the early tone-poem whose score lay forgotten in the Helsinki University archives until it was recently unearthed and *recorded by the Lahti* orchestra. It was invaluable to listen to this piece in the context of a weekend of Sibelius, because it sets in relief the structural compactness he later achieved.

There were rare outings for the *Voces Intimae* string quartet and *Luonnotar*, the brief, bird-like orchestral song in which Sibelius eerily conjures the Spirit of Nature. Thanks to Symphony Hall's receptive acoustic, both were heard to optimal effect. Kirsi Tiihonen's full-bodied *timbre and* ecstatic top were ideal for the high-pitched drama of *Luonnotar*, which says as much in nine minutes as Mahler said in 90. The Tempera Quartet – four Finnish postgraduate students at the Royal College of Music, looking and playing like maidens from the "Kalevala" – captured the sustained intensity of the quartet's slow central movement, which finds Sibelius in uncharacteristically warm, human mood.

Of the orchestral performances, the most fascinating was the Violin *Concerto. The* first version tells us not just about Sibelius's painful advance to maturity, but about his increasingly *abstract style: the relentless* attempt to telescope musical structure, pare away inessentials and back away from the logical conclusions of central European late-Romanticism.

Written during a period of intense psychological disturbance, it is longer and less fluent than the version we know, but far more virtuosic. At its heart lies a cadenza resembling a Bach *partita: Sibelius was right to* excise it, because it is stylistically alien. But any thoughts about the relative merits of the two versions disappear in the face of a performance as bravura as that of Leonidas Kavakos. This was only his second public performance of the immensely demanding first version, but it was despatched with the confidence of someone who had played it 50 times.

Vänskä's choice of extracts from the first and final versions of the Fifth Symphony showed Sibelius in a more advanced state of flux – flirting with Modernism, before feeling his way to a final form that was more consistent, compact and true to himself. Was *Sibelius an inveterate* reviser? Surely not. He was an inveterate searcher for the essence of what he wanted to say, as well as a perfectionist who recognised when he had not found it. As such, this demonstration underlined the uneasy relationship between his abstract ideals and his National Romantic heart. He never wavered from either.

The subtitle of the weekend has been changed from "The Creative Process" to "The Spirit of Nature", perhaps signifying a failure of nerve. Given the Lahti orchestra's expertise in the early versions, it seemed a waste not to focus more intensely on the creative process. As it was, the weekend lacked the sort of all-em*bracing vision that Sir Roger* Norrington brings to his "Experience" weekends. The Fifth Symphony demonstration was too obviously a second-hand version of BBC Scotland's documentary concert two years ago. It was impossible to judge the extracts out of context, and Vänskä's laboured English did not help.

His performances throughout the weekend were undeniably exciting, and the Lahti orchestra acquitted itself well, with dancing strings and agile brass. But Vänskä has an irritating tendency to exaggerate contrasts between loud and soft, fast and slow – to detrimental effect in the Third Symphony's Andantino and the first movement development *of the Fifth.*

Two big questions remain: why is the Sibelius family so ridiculously proprietorial about the music, and why did the organisers not allow us to hear the first version of the Fifth Symphony in full? Instead of being a defining moment in our understanding of Sibelius, the Birmingham weekend offered a fractured portrait.

OPERA IN PARIS ROSSINI'S 'ZELMIRA'

Happier in the history books than on the stage

The job of reviving neglected operas is not one for an historian. Given the skills required, it might be more appropriate to call upon an anaesthetist, as the crucial moment is when the opera is publicly resuscitated on stage – sometimes, one feels, against its will.

Rossini's *Zelmira* is not completely unknown these days. *After more than a* century of neglect the opera's modern revival came in 1965 in Naples, the city for which it had been composed, and subsequently there have been a handful of other productions and a successful recording. But as a living drama, ready and willing to take the stage again, *Zelmira* does not show a great inclination to respond.

For its most recent outing the Opéra National de Lyon and the Théâtre des Champs Elysées in Paris have joined forces to present the opera in a co-production, which is now in Paris. Rather than commit themselves to a wholly new staging, they have chosen to blow the dust off a production made for the Pesaro Festival, where it was well received in 1995.

This treats *Zelmira* frankly as a museum piece. In each generation I suppose there has to be one producer who is content to decorate the stage with columns and staircases and leave the opera to play itself. Pier Luigi Pizzi was the obvious candidate in the recent *past (though he additionally* had a fondness for rich velvets) and Yannis Kokkos looks set to take over his mantle.

There was undeniably a handsome aspect to these parchment-tinted vistas of ancient Greek temples, designed by Kokkos himself, if only everything else about the production had not been equally two-dimensional.

The lighting was obtuse, frequently plunging the singers into the murk at an important moment; and long stretches of the opera passed by with the singers apparently having been given nothing to do except stand on their allocated spot and stare vacantly into space.

"Ah," people will say, "but the glory of *Zelmira* is *its music." To which the* answer is, "Well, it had to be." This score may not be one of Rossini's tuneful favourites, but it is notable for its originality (there is not one conventional aria) and the sense of the drama starting to shape the music. Without matching its sense of risk-taking the conductor, Maurizio Benini, did not let the pace drag and obtained adequate playing from the Orchestre de l'Opéra National de Lyon.

For some reason the principals were seized by an irresistible urge to leap on the nearest bit of stage furniture to deliver their vocal fireworks

The cast included some first-rate Rossini voices. Above all, *Sonia Ganassi* was exceptional as Emma, giving her moments of vocal opportunity (including the lovely aria Rossini added later for Vienna) a real frisson with the beauty and firmly-founded tone quality of her singing. Put her on stage alongside any of today's star Rossini mezzos – Cecilia Bartoli, Jennifer Larmore or Vesselina Kasarova – and she would give them a run for their money.

There was no problem with the treacherous tenor roles. Charles Workman has an unusual voice that is adept both at very high notes and very low ones – a tenor with a penthouse and a basement as it were, very useful for the role of Antenore in which Rossini *keeps his singer dashing up* and down from one to the other. Paul Austin Kelly was less conscientious about his coloratura, but then there are not many singers who could get round the stratospheric part of Ilo at all.

The remaining roles were generally not well taken, though René Schirrer tried to give Leucippo a bit of force. For some reason each *of the principals was* periodically seized by an irresistible urge to leap on the nearest bit of stage furniture and deliver their *vocal fireworks from there* – a whim that looked doubly ludicrous in a production so devoid of any meaningful action.

That was how Mariella Devia came to end the opera *on top of a rock stage right.* From there she delivered a few beautifully lambent phrases in Zelmira's closing solo, but her effects were more carefully husbanded here than they used to be, as *though she was aware the* important moments must not be allowed to fail. Too much of the time she held *the voice back, to protect its best quality, and declined to* take the role by the throat.

If she had, maybe the whole evening might have seemed different. As it was, *Zelmira* came across as an opera which is happier with its place in the history-books than on the stage.

Richard Fairman

Fine interpretation of a serial seducer

BALLET

CLEMENT CRISP

The Return of Don Juan
Sadler's Wells, London EC1

The Devil, we know, never sleeps. Nor do his subjects. And *if hell is other people, it is, for* Kim Brandstrup's Don Juan, the vain repetition of seductions, and these forever cheated of their consummation. And never a moment alone in grateful slumber. Brandstrup's two-act *The Return of Don Juan* had its first performance on Monday at Sadler's Wells. Made for his Arc Dance Company, its purpose is to provides a roaring new role for Irek Mukhamedov.

The casting of this most potent *dance-actor of our time* is inspired. Mukhamedov has the physical allure for the Don, the sex-appeal, the dark fascination which could weaken the knees of any right- (or wrong-) *thinking* girl. He has the subtlety to suggest the compulsive appetite of the serial seducer. He is an interpreter to set against the finest in any of the operatic or dramatic incarnations of Don Juan.

Brandstrup's narrative owes everything to a radio drama by Oluf Bang (whence his title) and to Ingmar Bergman's *The Devil's Eye* (1961) based on this same tale. Don Juan lies exhausted in Hell, but denied sleep. For the four centuries since his dinner with the Stone Guest, he must *forever re-enact* the routine of seduction and be denied its fruits, and he is satanically tired. Old Nick offers a chance for sleep. There exists on earth a pure girl. He will give Juan three days in which to corrupt her. Success will bring sleep.

Juan returns to earth, to a film-studio making a *Don Juan* in which the girl is appearing, and he is soon the hero of the opus. The girl resists him, and the roué turns compassionate. He cannot seduce her. In an optimistic – if obscurely staged – twist, the Devil is cheated into thinking Juan's mission is accomplished, and the Don sinks at last to rest *between the diabolical sheets.*

The staging offers many characteristics of Brandstrup's work. The narrative is told allusively. The stage picture is elegant and economical: splendid sets by David Roger; fine clothes by *Craig Givens*; imaginative lighting (albeit darker at moments than seems strictly necessary) by Tina McHugh. There is a new and vivid chamber score by Kim Helweg. Arc's Franciscan budget encourages wit rather than clutter – a virtue too often ignored by our larger ensembles. And yet on Monday I was only partly convinced by what I saw.

Mukhamedov does everything to drive the action along. His dancing is both large in scale and juicy in dynamic – no movement without weight, authority, a luscious energy – and as a comedian (the ballet is, after all, a comedy rather than a Mozartian tragedy) he has the lightest of touches. Exhausted, longing for sleep, forever cheated of his prey (his frustration at lowering his body on to empty sheets is very happily done), he remains an unrivalled dance-actor, able to gauge exactly the weight of feeling needed. He looks stunningly handsome as the historical Don of the film, and sprawls with a fine sexual arrogance. His remorse and final impotence, for such it must be considered, are very moving.

Mukhamedov finds a matching talent in Kenneth Tharp, whose *Devil* is a sharp, tail-swinging and menacing figure – the smiler with the knife – whose comic moments can still chill the blood. Leporello is also very well taken by Bernard Espinasse who, in a neat twist, is seduced rather than being a seducer. It is, I suspect, because virtue, while admirable in life, is so soporific in art, that the role of the Girl looks thin, and Genevieve Byrne's playing seemed too demure. (It's a sad soul that can't laugh at Little Nell's death-scene. *The Girl's* rather mimsy virtue, and her lamentable wardrobe, do not raise even a smile.) Without tension between Don Juan and his victim, we watch unengaged, and the final trick to cheat the Devil, when a Mickey Finn is not administered to the girl, I found unconvincing.

But tightening of the action can remedy these longueurs: Brandstrup's choreographic text has many virtues. And Mukhamedov, who could galvanise a balance sheet into some semblance of poetic truth, is here at full and superlative stretch. He must be seen.

Sponsored by Daniel Katz Ltd.

At full and superlative stretch: Irek Mukhamedov in the title role, with Victoria Edgar Alastair Muir

INTERNATIONAL

Arts Guide

AMSTERDAM

OPERA

Netherlands Opera, Het Muziektheater
Tel: 31-20-551 8911
Die Zauberflöte: by Mozart. Conducted by Hartmut Haenchen in a revival of Pierre Audi's staging co-directed by Saskia Boddeke; Mar 5, 8

BERLIN

OPERA

Deutsche Oper
Tel: 49-30-34384-01
Rise and Fall of the City of *Mahagonny*: by Kurt Weill, libretto by Brecht. New staging by Günter Krämer, conducted by Lawrence Foster, with designs by Gottfried Pilz and Isabel Ines Glathar; Mar 4

COPENHAGEN

EXHIBITION

Statens Museum for Kunst
Henri Matisse: Four great collectors. Brings together works from what were once the greatest private collections of Matisse's art, made by two Russians, Morosov and Schukin, and two Danes, Tetzen-Lund and Rump. The show was organised jointly with the Hermitage Museum in St. Petersburg, where it opened last year; to May 24

EDINBURGH

EXHIBITION

Scottish National Portrait Gallery
Tel: 44-131-624 6200
John Ruskin: exhibition exploring the *influence of the Victorian* critic and theorist. Includes drawings, watercolours and photographs; to Mar 7

GLASGOW

OPERA

Scottish Opera, Theatre Royal
Tel: 44-141-332 9000
The Magic Fountain: by Delius. Conducted by Richard Armstrong in a new staging by Aidan Lang, with designs by Ashley Martin-Davis; Mar 4, 6

LONDON

DANCE

Sadler's Wells
Tel: 44-171-863 8000
Arc Dance Company: The Return *of Don Juan*, in a new staging by Kim Brandstrup, starring Irek Mukhamedov. With an original score by Kim Helweg; Mar 3

EXHIBITIONS

National Gallery
Tel: 44-171-839 3321
Orazio Gentileschi at the Court of *Charles I: first-ever retrospective* of the 17th century Italian painter, *friend to Caravaggio, and* Court Painter to Charles I. Includes a group of works from the Queen's House in Greenwich, sold after the king's execution and never seen together since; from Mar 3 to May 23, then travelling to Bilbao

Queen's Gallery
Tel: 44-171-839 1377
The King's Head: organised to coincide with the 350th anniversary of the regicide, this biographical exhibition brings together images of Charles I from all stages of his life. Including Van Dyck's triple portrait, prints, medals and books, the show concludes by focusing on the iconography of the king as martyr; to May 3

OPERA

English National Opera, London Coliseum
Tel: 44-171-632 8300
Parsifal: by Wagner. Conducted by Mark Elder *in a new staging* by Nikolaus Lehnhoff, with sets by Raimund Bauer and costumes by Andrea Schmidt-Futterer. Cast *includes* Kim Begley and Jonathan Summers; Mar 3, 6

MILAN

EXHIBITION

Palazzo Reale
Tel: 39-02-8691 5738
L'Anima e il Volto: (The Soul and *the Face): major exhibition of* portraiture, comprising 370 works ranging over 400 years. Artists represented include Titian, Caravaggio, Van Dyck, Picasso and Francis Bacon; to Mar 14

MUNICH

CONCERTS

Philharmonie Gasteig
Tel: 49-89-5481 8181
● Bavarian Radio Symphony Orchestra: conducted by Lorin Maazel in works by R. Strauss and Couperin; Mar 4, 5
● Beethoven Academie: conducted by Christopher Hogwood in works by Mozart and Haydn, with piano soloist Stefan Vladar; Mar 3

EXHIBITION

Haus der Kunst
Tel: 49-89-211270
Angelika Kauffman (1741-1807): retrospective of works by the Swiss decorative artist, who was a founder member of London's Royal Academy. Includes paintings, drawings, prints and porcelain; to Apr 18

JAZZ

Philharmonie Gasteig
Tel: 49-89-5481 8181
B B King: performance by the blues guitarist; Mar 6

NEW YORK

EXHIBITIONS

Metropolitan Museum of Art
Tel: 1-212-879 5500
www.metmuseum.org
● Masterpieces of Photography from the Gilman Paper Company: *45 of the greatest 19th century* photographic works from the collection; to May 23
● Picasso: Painter and Sculptor in Clay. Seen last year at London's Royal Academy, this show brings together 175 ceramic works by Picasso, mostly created between 1947 and 1962; from Mar 3 to Jun 6

OPERA

New York City Opera, New York State Theater
Tel: 1-212-870 5570
www.nycopera.com
● Lizzie Borden: by Jack Beeson. New production conducted by George Manahan in a staging by Rhoda Levine, with Phyllis Pancella in the title role; Mar 6
● Madama Butterfly: by Puccini. Conducted by Guido Johannes Rumstadt in a staging by Mark *Lamos first seen in November,* with sets by Michael Yeargan and costumes by Constance Hoffman; Mar 7

PARIS

EXHIBITIONS

Grand Palais
Tel: 33-1-4413 1730
Un ami de Cézanne et de Van Gogh: le docteur Gachet (1828-1909). Exhibition devoted to the doctor and painter who was a friend to Cézanne, Pisarro, Monet and Renoir as well as to Van Gogh, who famously spent the last weeks of his life with Gachet at Auvers-sur-Oise; to Apr 26, then transferring to New York

Musée d'Orsay
Tel: 33-1-4049 4814
www.Musee-Orsay.fr
● Edward Burne-Jones: major retrospective of the British pre-Raphaelite painter, which forms the mainstay of the museum's 'saison anglais'; from Mar 4 to Jun 6
● Gothic Revival: Architecture and Decorative Arts of Victorian England. Display examining the fascination of mid-19th century artists with medieval society, with particular emphasis on the nascent Arts and Crafts movement; to Jun 6

OPERA

Opéra National de Paris, Opéra Bastille
Tel: 33-1-4473 1300
www.opera-de-paris.fr
Macbeth: by Verdi. Conducted by Gary Bertini in a staging by *Phyllida Lloyd, with designs by* Anthony Ward. Cast includes Jean-Philippe Lafont and Maria Guleghina; Mar 5, 9

Opéra National de Paris, Palais Garnier
Tel: 33-1-4343 9696
www.opera-de-paris.fr
La Clemenza di Tito: by Mozart. Conducted by Ivor Bolton in a staging by Willy Decker with designs by John MacFarlane. Cast includes Theo van der Walt and Christine Goerke; Mar 4, 7

TOKYO

CONCERTS

Suntory Hall
Tel: 81-3-3584 9999
● Mischa Maisky: recital by the *cellist of works by Beethoven,* accompanied by Daria Hovora; Mar 9
● Orchestre National du Capitole de Toulouse: conducted by Michel Plasson in works by Debussy, Ravel and Berlioz; Mar 4

ZURICH

EXHIBITION

Kunsthaus Zurich
Tel: 41-1-251 6765
Chagall, Kandinsky, Malevich and the Russian Avant-garde: exhibition exploring the artistic upheavals of the first two decades of this century. Includes important loans from the State Hermitage Museum in St. Petersburg and provincial Russian museums; to Apr 25

TV AND RADIO

● WORLD SERVICE

BBC World Service radio for Europe can be received in western Europe on medium wave 648 kHZ (463m)

EUROPEAN CABLE AND SATELLITE BUSINESS TV

● **CNN International**
Monday to Friday, GMT:

06.30: *Moneyline with Lou Dobbs*
13.30: *Business Asia*
19.30: *World Business Today*
22.00: *World Business Today Update*

● **Business/Market Reports:**
05:07; 06:07; 07:07; 08:20; 09:20; 10:20; 11:20; 11:32; 12:20; 13:20; 14:20.

At 08:20 Tanya Beckett of FTTV reports live from LIFFE as the London market opens.

COMMENT & ANALYSIS

PERSONAL VIEW ROBERT REICH

The wrong war

Like generals preparing to fight the old war, the world's central bankers are still obsessed with inflation. They should be looking forward to the real enemy: deflation

Look around the world and what you see are identical policies in favour of trimming public spending, cutting debt, raising interest rates and squeezing money supply.

Euroland has made deficit reduction the ticket to admission. The International Monetary Fund still screams "austerity!" at any hint that capital may flee a developing nation. And in the US, the Delphic and venerable Alan Greenspan, the US Federal Reserve chairman, told the Senate banking committee last month that the Fed would continue to evaluate "whether the full extent of the policy easings undertaken last fall to address the seizing-up of financial markets remains appropriate as those disturbances abate". Translated: If we do anything over the next few months, it will be to raise short-term interest rates.

The US bond market responded by pushing up long-term rates by nearly one-tenth of a percentage point.

What we have here is a perfect example of the generational Law of Living Memory. The current generation of world leaders was traumatised by double-digit inflation in the 1970s. This occurred when they were young adults (Bill Clinton, Gerhard Schröder, Tony Blair), or middle-aged fogeys (Mr Greenspan).

None of them has a living memory of the early 1930s, when deflation and depression haunted the world. The generation that directly experienced the Depression fell under the sway of John Maynard Keynes – "We are all Keynesians now," Richard Nixon famously proclaimed – because Keynes understood the proclivity of businesses to underinvest, from time to time, relative to the productive capacity of a nation. Inadequate demand was a greater threat than excessive demand.

It should not be surprising, then, that the Law of Living Memory should bias this generation towards wanting to pre-empt inflation rather than deflation. Yet the latter condition is as dangerous as the former, and arguably more so under current circumstances.

It was not long ago that Mr Greenspan was warning Americans that the US could not remain prosperous if the rest of the world was in trouble – but that was then.

Now, Mr Greenspan says that while the Fed must take into account the impact of global problems on the US economy, interest rates should not be set for the benefit of other countries. As long as things are chugging right along here, the Fed will continue to watch out for inflation, not deflation, and the rest of the world be damned.

This is dangerous talk. The average inflation rate in the Group of Seven leading industrial economies is 1 per cent, the lowest in half a century. Inflation in most of Europe is close to zero, but unemployment among the Euro-11 is 10.7 per cent. Japan's economy is turning into a shrivelled raisin. Prices are dropping across much of east Asia, including China. Russia remains a basket case, and the outlook in Latin America is poor to bad.

American consumers are about the only large group of people left in the world who are diligently buying. It would be only a slight exaggeration to say that American consumers have become the engine of the world economy. Mr Greenspan is thinking about throwing less coal into the engine box.

Even if the rest of the world were fine, a case could be made for continuing to pile coal on the US locomotive.

Inflation in the US is at its lowest for more than a generation, and there is no sign of it accelerating. More to the point, the US economy is more vulnerable than Mr Greenspan may think (or publicly concede). US consumers are deliriously happy about what has been happening on Wall Street, as the value of their stock portfolios has soared over the last three years. But apart from their paper holdings, no one is saving a thing. Consumer and credit card debt is at record levels and personal bankruptcies are legion. Because of all the buying, unemployment is also down to record low levels, which encourages consumers to buy even more.

This virtuous circle – consumer ebullience fired by soaring stock values, which continue to soar because consumers are buying so much, which lowers unemployment and thus fires more ebullience – could turn vicious. Such was the danger last August and September when the US stock market plunged on news of Russia's default and Brazil's troubles.

If Bill Clinton could counterbalance the Fed's inflation hawkishness, there would be less concern. But US fiscal policy has vanished

Mr Greenspan and company wisely lowered short-term rates by $1\frac{1}{4}$ points and got the wheels spinning in the right direction again. They now fear they may have gone too far. But raising rates any time soon – even proclaiming the likelihood of a rate rise – could cause the locomotive to slow, and thus stop the global economy dead in its tracks.

Mr Greenspan is only one member of the Federal Reserve Board's 12-member Open Market Committee, albeit the most influential member. Even if he wished to ease up on short-term rates, Mr Greenspan would have to convince a majority of his colleagues of the wisdom of doing so. Some members, like Jerry Jordan and William Poole, are extreme inflation hawks. They worry about little else.

If the US still possessed a fiscal policy capable of counterbalancing the Fed's inflation hawkishness, there would be less reason for concern. But US fiscal policy has vanished. Mr Clinton is now arguing that the US federal budget's projected surpluses should be used to pay down America's public debt over the next 15 years, reducing it from 45 per cent of gross national product to 7 per cent. Republicans prefer a tax cut. Republicans thus have become the party of Keynes; the president, the lineal descendant of Republican Calvin Coolidge.

But the world economy is more intertwined than it has been in a century. Asia and Latin America (aided by global companies) have built significant productive capacity, much of which now lies dormant. At the same time, advanced economies depend to a greater extent than ever before on exports to developing nations, which are rapidly declining.

Deflation in one major part of the global economy will surely lead to deflation in the rest.

At the very least, the US needs a clearer view of the whole, and a greater willingness to accept the risk of the new threat of global deflation.

Fiscal and monetary policies in all major economies, along with policies promoted by the IMF for developing nations in distress, must consider the totality of global supply and demand – and do so without a generational bias. Even Mr Greenspan would be wise to widen his sights.

The author, a former US secretary of labor, is the Hexter professor of social and economic policy at Brandeis University

LETTERS TO THE EDITOR

Japan and the pill: debate fosters transparency

From Yasutomo Yoritaka.

Sir, Your article on Japan's disgraceful handling of a low-dose contraceptive pill is timely and highlights several important aspects of this ongoing debate ("Time to sweeten the pill", February 27-28).

Although you demand a slight stretch of logic by claiming that the contraceptive debacle suggests that "Japan remains a male gerontocracy", you rightly point out that the powerful voice of some social conservatives in the Diet (parliament) has played a role in delaying the balanced assessment and approval of the pill. Some of their arguments – for instance, the country's declining fertility and the risk of an increase in sexually transmitted diseases – touch on issues that are of genuine and legitimate concern for the Japanese public.

However, these issues can be more effectively dealt with through other policy measures – say, by ensuring greater maternity rights for working women and promoting higher awareness of STDs. Most of the other, often moral or pseudo-religious arguments against the pill, including the notorious claim that it would have negative effects on women's "moral behaviour", are plain absurd. It is hard to imagine a moral or religious principle that speaks against pregnancy prevention and yet turns a blind eye to abortions on demand.

The good news is that the public debate inside and outside Japan is finally forcing the bureaucrats at the health and welfare ministry to re-examine its approval policy and to reflect the wishes of the public. Perhaps at the end of this sorry saga we will see a fairer and more transparent policymaking apparatus at the ministry – and greater sexual freedom for Japanese women and men.

Yasutomo Yoritaka,
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FDA fully assessed Monsanto products

From Mr Stephen Waters.

Sir, S. Leubuscher's comments (Letters, February 26) imply that the Food and Drug Administration was not involved in the assessment of the safety of Monsanto's Roundup Ready soyabeans and insect-protected maize. In fact, the FDA fully reviewed the safety and nutritional assessments conducted with both products.

The FDA concluded that Roundup Ready soyabeans and Monsanto's insect-protected maize were not materially different to other soyabeans or maize. In addition, the US department of agriculture reviewed both products for any potential agricultural or environmental impact. Only then did they grant permission for them to be grown and used as any other soyabeans or maize.

Moreover, extensive data on the safety and composition of both products were provided to and reviewed by each of the European Union member state regulatory authorities.

Following this review process, Roundup Ready soyabeans and Monsanto's insect-protected maize were approved for use in the EU.

The regulatory authorities in many other countries including Canada, Brazil, Argentina, Mexico and Japan also reached the same conclusion of equivalence to other soyabeans or maize.

Safety assessments are conducted according to guidelines for transgenic plant products developed by the World Health Organisation/Food and Agriculture Organisation, the Organisation for Economic Co-operation and Development, and regulatory authorities around the world.

Stephen Waters,
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Glare of publicity will curb fraud

From Mr Richard Lucas.

Sir, Jacques Santer, the president of the European Commission, is to be commended in making such a public commitment to openness in investigation of European Union fraud ("Thumbs up for reform", February 26). Can we expect the following simple and effective measure to stop abuses?

All successful proposals for consultancy (whether corporate or individual), together with the resulting report submitted, should be uploaded to a dedicated EU web site. Consultants would be able to demonstrate that they provide quality advice and expertise at reasonable cost. The EU could prove that consultancy reports commissioned were a good use of taxpayers' money. EU citizens would marvel at the skills of their colleagues in consulting. The bright light of publicity would do more good than any number of independent investigators.

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US must not give in to China over missile shield

From Mr Vincent Wei-cheng Wang.

Sir, Beijing's veiled threat to transfer missile technology to third countries continues her disturbing pattern: threatening to play a spoiler role as a bargaining chip (report, February 28).

The US should refuse China's demands. The proposed Theatre Missile Defense (TMD) is defensive in nature. If China has no offensive intentions (say, against Taiwan), why should she oppose it?

China's missile "tests" against Taiwan in 1996, which caused the US to intervene, made it obvious that Taiwan, US troops in the region and neighbouring countries sorely needed "defences from the sky". According to recent reports in the FT, China has since greatly increased the number of missiles aimed at Taiwan. This will only raise the costs of US intervention in China-Taiwan conflict.

Therefore, of the three options for the US – defending Taiwan against a much stronger and assertive China, aiding Taiwan with offensive missiles, and aiding Taiwan with defence from Chinese missiles – including Taiwan in the TMD seems to entail the least costs, as long as China still refuses to renounce force against Taiwan.

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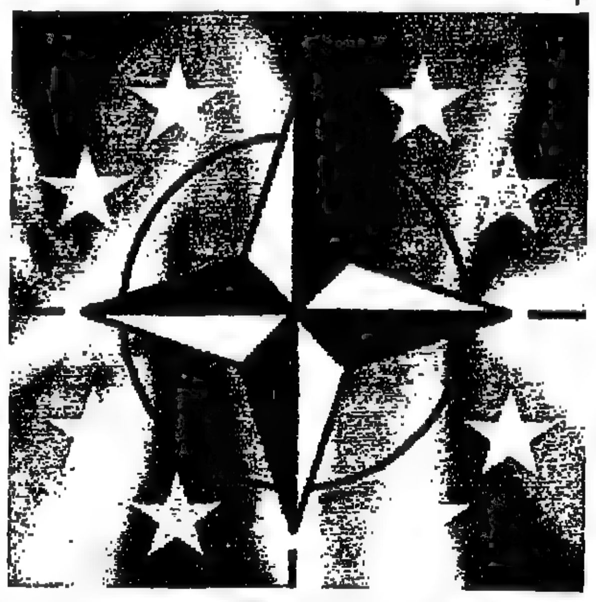
PERSONAL VIEW ROBERT E. HUNTER

Summit of summits

The EU should use Nato's 50th anniversary summit in Washington next month to co-ordinate the two institutions' policies



The North Atlantic Treaty Organisation's summit in Washington on April 23-25 promises to be a grand celebration of the alliance's first 50 years – provided that efforts to stopthe Kosovo conflict are successful. But it is unlikely that the "largest collection of foreign leaders ever to assemble in Washington" will do much new to chart the course of transatlantic relations for the 21st century.

On current plans, the Nato summit will not invite any more central European countries to join the alliance, nor even decide when next to do so. Instead, it will issue a "vision statement" and revise its "strategic concept" (the basic set of principles on which the alliance rests). These changes are both more about codifying what has already been done than providing new ideas for the future. None of it is especially ambitious or eye-catching for a meeting billed as ushering in Nato's next half-century.

With this prospect, the allies need to supplement the military dimensions of transatlantic relations. Most pertinent are economic ties across the Atlantic and extending deep into central Europe and Russia. But economic issues are never included on a Nato agenda, even at the summit; they are fenced off from the military alliance and jealously guarded by the European Union and a phalanx of transatlantic institutions.

There is a direct and simple answer: to augment the Nato summit with an economic meeting of heads of state and government – precisely, a full EU summit convened in Washington on April 26, the day after the Nato talks conclude. The US and other non-EU Nato allies would be invited to take part, and there would be a separate session to draw in the 27 other members of Nato's Partnership for Peace.

The merits are obvious. An EU summit in Washington, hard upon the Nato meeting, would bring together all the transatlantic countries to consider every key dimension of the long-term relationship – political, military, and economic. (Only Ireland will not be in Washington anyway, since other EU states belong either to Nato or its Partnership for Peace.) This would permit discussion of the full range of matters on the 21st century agenda and show how they relate to one another – exploring connections, for example, between the expansion of the EU and that of Nato, or between Nato's military requirements and defence industry co-operation among EU members. The EU and Nato could review and reinforce their complementary efforts to include central European states, to reach out to Russia, and to take full advantage of high technology and the information revolution.

Nato and the EU would then agree on a joint Declaration of Washington that truly covers the waterfront, integrates all the key issues, sets transatlantic goals for the years ahead, and – in the bargain – generates some media and popular interest that is lacking in the current plans for the Nato summit.

The twin summits would also start breaking down the artificial barrier between Nato and the EU. Remarkably, these two institutions, both based in Brussels, still behave as though they lived on different planets. They have no formal contacts, no exchanging of ideas. Even individual governments on both sides of the Atlantic tend to divide their bureaucrats into political-military and the political-economic tracks for their entire careers.

Nato has a history of pulling the two sides of the Atlantic together and can help reduce stress in economic relations as the EU deepens its integration

Despite radical changes taking place in continental Europe, Nato and the EU still tend to ignore the fact that both are involved in central Europe and Russia, both are taking in new members, both have a stake in the former Yugoslavia, and both play roles in promoting European "security" in its broadest sense. This last point was further underscored by last December's Anglo-French agreement at St Malo, which foresees the EU's direct role in defence matters.

Holding twin summits in Washington would send a clear signal that Nato and the EU must henceforth start working together in practice. This would also help both sides of the Atlantic reduce the risk of corrosive economic competition across the Atlantic. Nato has a history of pulling the two sides of the Atlantic together and can help reduce stress in economic relations as the EU deepens its integration.

There will be objections to marrying Nato and EU summits, but these centre on outdated institutional prerogatives, mostly on the Europeans' part. Some resist any encroachment on the EU by Nato, with its inherent American leadership, while Europe tries to build its own integrity. They prefer to keep apart the Nato summit and the semi-annual meetings of the US and European Council presidents – but that has the effect of robbing them of any relationship in the public eye.

Such objections are not very important, however, measured against the EU's rising confidence in its own institutional success, the opportunity provided by this proposal, and the compelling need for these two institutions to address similar issues together. In fact, this joining of summits should become a standard feature of Nato-EU co-operation and also be reflected in new working relations between them in Brussels. And the US should take the lead by tying its Brussels missions to Nato and the EU closer together.

The Atlantic summit for the millennium: to make it happen will require imagination and leadership on both sides of the Atlantic that matches the shared tasks ahead.

The author is a senior adviser at the Rand Corporation and a former US ambassador to Nato

FINANCIAL TIMES

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Wednesday March 3 1999

Time to back Iran's reformers

Mohammad Khatami, Iran's reformist president, has demonstrated once again that he has overwhelming popular support in trying to bring the 20-year-old Islamic revolution under democratic accountability and the rule of law. The west must now do its utmost to bolster his position.

The results emerging from last Friday's first nationwide elections for municipal government show that the reform coalition is intact and on the march. With the outcome still incomplete, it looks as though Khatami has won over 70 per cent of the seats, in the same way that he won over 70 per cent of the presidential vote 21 months ago – on a turnout of 90 per cent.

Iran's orthodox theocrats were – and remain – stunned by the sheer scale of that victory. Now it has happened to them again, and the armies of youngsters and women who elected Khatami have this time been electing themselves; some significant councils will be either majority or totally controlled by women.

For all that the hardliners retain control of key levers of power – foreign and defence policy, the intelligence services and judiciary – they have been massively rejected by the Iranian people. The reformists, moreover, have refused to succumb to a campaign of intimidation, obstruction and – in recent months – assassinations.

The bloody turn of recent events appears to have followed the Khatami government's attempts to start auditing the theocrats' material interests, which control about 85 per cent of Iran's economy. It is in this sphere that the west can no longer stand aside if it wants reform to triumph in Iran.

Iran needs to create nearly 1m jobs a year for its very young population and, with oil prices now at a 13-year low, it desperately needs investment. The present, mafia-like structure of the economy is a big impediment. But so too are US attempts to isolate Iran by sanctions.

Admittedly, the US administration has acknowledged that the Iran Libya Sanctions Act (Ilsa), which purports to punish foreign companies investing in Iran, is unenforceable. Elf Acquitaine of France and Eni of Italy – which President Khatami will be visiting next week – have just underlined this with a new $1bn investment in an offshore oilfield.

But at a time when Tehran is opening to the world – even considering equity stakes in its oil industry – the US is deterring investment and withholding recognition of the international stature Khatami needs to succeed at home.

The Clinton administration is strapped by visceral congressional opposition to Iran. But, along with its European allies, it should now be searching for the sort of gestures and actions that can underpin President Khatami rather than undermine him.

Dismal business

If the European consumer is cheerful, European business is not – an understandable consequence of the poor outlook for European exports since the onset of the Asian crisis. But could it be more than that? Might the leftward political shift in Europe's four largest economies be a contributory factor in the decline of business confidence?

In Germany, where the loss of economic impetus has been most conspicuous, business is in a state of shock over tax changes proposed by Oskar Lafontaine, the finance minister. These shift the burden of tax from middle- and low-income households on to the corporate sector.

Already RWE, the German energy and industrial conglomerate, has threatened to review its domestic investment plans, complaining that German utilities face an increase in their tax bill of DM25bn ($13.9bn). This arises from a new impost on reserves. Veba, the energy group, has made similar noises. And Allianz, the German insurance giant, is talking about moving some of its operations, and maybe even its head office, abroad.

At first sight, the protest seems disproportionate. Despite a high headline rate of corporation tax, company tax revenues in Germany are among the lowest in Europe as a percentage of gross domestic product thanks to a plethora of allowances.

Yet the timing of the tax changes is undeniably perverse. Shifting the burden from buoyant consumers on to depressed business looks ill-judged, especially in the light of recent excessively generous wage settlements. Given the inability of German industry to pass on higher costs in higher prices, this points to a profits squeeze and, in due course, lost jobs.

An opportunity has been thrown away in that the thrust of the changes is towards revenue raising and redistribution rather than economic efficiency. In an economy so short of business dynamism Mr Lafontaine should have aimed at a big reduction in the headline rate of tax in exchange for rationalisation of the allowances and a sharpening of entrepreneurial incentives.

It is too early to talk about a wider move to milk European business, although the UK has seen a similar raid on the corporate sector. But there is clearly a danger, as evidenced by the renewed hankering for tax harmonisation among leftwing EU governments. As Sweden has shown – *pace* Mr Lafontaine – excessive taxes on industry can drive business and jobs offshore.

What continental Europe badly needs after years of slow growth is tax reform geared to dynamising the supply side of the economy and avoiding ill-conceived harmonisation.

Africa's poison

The killing of at least 11 people, including eight tourists, in a remote game park in western Uganda, is more than an act of random banditry. It should bring home to the outside world the brutal reality of a genocide and civil war that the west has sought to keep at a distance.

The genocide in the tiny but overpopulated state of Rwanda, in which the majority Hutu people massacred up to 1m ethnic Tutsis in just 100 days in 1994, has continued to destabilise the whole of central Africa. Next door, the vast expanse of the Congo, formerly Zaire, is a political vacuum, riven by civil war, since the collapse of the corrupt regime of Mobutu Sese Seko. It has sucked in the conflict from neighbouring Rwanda, and provided space and oxygen for that bitter confrontation to flourish.

The poison in central Africa has now spread to Zimbabwe, which has sent several thousand troops to support the beleaguered regime of Laurent Kabila against his former Tutsi and Ugandan allies. Angola, itself wracked by civil war, has been pulled in from the south-west, again to back Kabila, a weak head of state who overthrew Mobutu more thanks to the rottenness of the old regime than to his leadership.

The killings in Uganda were the work of the notorious Interahamwe Hutu militia, responsible for the genocide in 1994, and since then roaming the Congo as a homeless band of murderers still hoping to recover power. In Rwanda itself, the Tutsi minority now runs the country, but cannot allow genuine democracy, for fear of being once again victims of slaughter.

As for Uganda, it is paying a high price for its role as the backer of the Tutsi people, and through them, of Mr Kabila when he first seized power. Yoweri Museveni, the widely respected Ugandan president, sought to play the role of regional power broker, and is suffering the consequences. The economic recovery of his country, seen as a potential model for many other African states, is being undermined by the security threats from across his borders.

It is not just that the civil war in the Congo is being made worse by the involvement of outsiders. They in turn risk being destabilised. In Zimbabwe, Robert Mugabe, the president, faces a growing backlash against the cost of his ill-conceived decision.

This is a complex African problem that requires an African solution. The non-African world cannot, and should not, intervene. It should, if asked, be prepared to play the role of an honest broker. And those who have provided military assistance must be left in no doubt that they have made matters worse for all concerned.

Barnyard noises

France's determination to keep its farmers happy by refusing to budge over CAP reform has threatened its political relationship with Germany, says Robert Graham

As the giant fair-skinned bull slowly rises from his straw bed and lazily shakes his haunches, the crowd falls silent. Then his handler begins to comb the long blond hairs at the end of his tail into a fine bouffon, forcing a gasp of awe from parents and children alike.

This monstrous bovine champion is one of the stars of France's annual international agricultural show being staged this week in Paris. It is the country's most popular fair: farmers meet to exchange gossip and show off their stock while the country's urban population makes an annual pilgrimage to renew its emotional and sentimental links with rural France.

This national sympathy for the farmer – the repository of essential French values – has allowed the farming lobby to acquire a political weight well beyond its economic importance. No recent French government has dared go against this lobby whose privileges have been enshrined, through a system of generous subsidies, in Europe's Common Agricultural Policy (CAP).

But Jacques Chirac, the French president, and the Socialist-led government of Lionel Jospin face an awkward choice. Should defence of French agricultural interests be allowed to weaken the Franco-German axis, the pillar of Paris' European policy, and in so doing, damage the credibility of co-operation in managing the new single currency?

A dispute over how to reform agricultural spending has flared up, pitting France against Germany and most of the other EU members. It is taking place against the background of European diplomatic uncertainty following the replacement of the long-serving Helmut Kohl as Chancellor of Germany. It has occurred at a time when the launch of the euro is ushering in a new phase of European integration. The result is not, as some have suggested, a deep split between France and Germany. Rather, France is resisting a new equilibrium in post-euro Europe – and agriculture is the arena in which the new alignment of forces will become evident.

Stabilising heavy farm expenditure is a key element in a broader shake-up of EU finances – the so-called Agenda 2000. France is resisting proposals to reduce EU expenditure on agriculture by shifting part of the burden on to national budgets and rejects large-scale cuts in guaranteed prices for farmers. "Agriculture has been the source of some of the community's most bitter rows in the past, and obviously there has to be some sort of compromise," observes a senior European diplomat. "What is new is that France finds itself in the dock with the Germans wanting their money back."

The move by Gerhard Schröder's government to reduce Germany's role as the biggest net contributor to the EU budget merely confirms a policy initiated by Helmut Kohl. Nevertheless, this has been most unwelcome in Paris. The French have been the biggest beneficiaries of EU spending on agriculture, which accounts for 40 per cent of the total EU budget. Indeed, the CAP at the outset almost 40 years ago was shaped around the needs of north European farmers, of whom the French were largest contingent.

French officials recognise they have to make concessions. But in France's unique political system of "co-habitation", neither Mr Chirac, himself a former agriculture minister representing the conservative right, nor Mr Jospin can afford to "betray" farmers. Yesterday, in a special letter to parliament on European policy, Mr Chirac stressed France's will to play tough. This suggests France may prefer postponing any accord until after the June elections to the European parliament.

To head off a domestic backlash, France has sought to link any deal on agriculture to concessions wrung from other EU members on the Agenda 2000 – making the British accept a cut in their famous budget rebate and reducing assistance to countries like Spain. But to French dismay, the German presidency has made no such direct linkage, leaving Paris isolated.

French officials have played down their irritation, but in private they are angered over the sudden break in previously agreed diplomatic practice between Bonn and Paris. Wherever their positions have differed on EU policy, they have hammered out common lines in advance of key meetings, or at least kept each other informed of their respective strategies. This co-ordination has been the fuel for the Franco-German engine driving the development of the EU. Once Paris and Bonn have made up their minds, it has been difficult for others to disagree.

Diplomats attribute part of the problem to the inexperience of the Schröder government and the undue haste with which a nervous French establishment has sought to fill the void left by the departure last autumn of Mr Kohl. The fact that France and Germany now share coalition governments of similar leftwing hues may have produced a franker dialogue; but most French ministries find the exchange of information with their German opposite numbers often confused and contradictory, according to insiders.

"We have to be a bit more patient. We after all had our period of confusion in the first two years of the Mitterrand government in the early 1980s," a French official said.

However, it will not be easy to remove a more basic French uncertainty about the nature and direction of the new Germany, which shifts its capital eastwards to Berlin this year. During his 16 years in power, Mr Kohl never questioned France as an equal partner. When he might have challenged French dominance of EU institutions at the onset of the 1990s, he needed the endorsement of François Mitterrand, the late president, for the reunification of Germany.

With a generation in power, Paris sees Mr Schröder anxious to play a much more robust role defending German national interests (and incidentally with less interest in appeasing the German farm lobby).

In unguarded moments the French also concede their claims to an equal relationship are more difficult to sustain when Germany's population, post-unification, is 80m against France's 60m, and its economy is almost 30 per cent bigger. The possession of a costly independent French nuclear deterrent does not balance this out. France looks more akin to Britain and Italy in stature today.

Mr Schröder has talked of the need to find a new equilibrium in Europe and has showed renewed German interest in Britain playing a greater role. The decision by Tony Blair, the UK prime minister, to forge closer defence ties with France as a preliminary to a common EU defence policy has now been followed by a more general pledge on eventual membership of the euro. If his European colleagues accept Mr Blair at face value, Britain will occupy more space on the EU radar screen. By the same token the need to make a success of the single currency implies co-ordination of economic, fiscal and social policies among the 11 countries already in the euro-zone – not just France and Germany.

Thus, if the Franco-German postwar alliance has always been a marriage of reason, the rationale is beginning to change. The outcome of a row over farming could set in progress a subtle re-balancing of power in Europe.

Germany bites back

European politics brings out the bruiser in Gerhard Schröder, Germany's chancellor, as the French have discovered on agricultural policy. He is unafraid of pursuing a national interest – namely, a cut in Germany's net contribution to the European Union – even when attempting to act as honest broker as holder of the EU's rotating presidency.

That is not to say that the Franco-German axis has been undermined in Bonn's eyes. Mr Schröder and Joschka Fischer, foreign minister, argue the link remains fundamental for historic reasons and because experience suggests agreement between the two countries is essential to European integration.

But Mr Schröder's style is different from that of his predecessor, Helmut Kohl. Angelika Volle, executive editor of Internationale Politik magazine, says there is a "touch of the British" to Mr Schröder's pragmatism. He thinks of himself as instinctively European, "but he says that if it has worked for 20 years it doesn't mean it will work for the next 20 years".

To Germany, the Bonn-Paris axis is not an exclusive relationship. Bonn is watching closely the UK's hesitant embrace of a more European integrationist agenda. Mr Schröder would perhaps prefer to be more like Tony Blair than Lionel Jospin. It is also acknowledged that the package of EU financial reforms known as Agenda 2000 will require a consensus between Europe's north and south, as well as between Bonn and Paris.

Tensions have been heightened by Mr Schröder's relative inexperience in foreign affairs. The erratic and unpredictable performance of his new centre-left government has evidently played badly in Paris. Oskar Lafontaine, finance minister, has executed about-turns on exchange rates; Jürgen Trittin, environment minister, paid little heed to French sensibilities as he sought to stop the transport of German nuclear waste for processing in France. (German observers would, however, note also the obvious tensions between Mr Jospin and Jacques Chirac, France's president, and the reluctance of either to cede French interests).

But Mr Fischer argues there is "no alternative" to a strong Franco-German relationship. Bonn is hopeful of cutting a deal at the Berlin EU summit late in March. Ms Volle adds: "It is not a break or a parting from old traditions. It is just a usual identifying of own self-interests. In the past it was the French identifying their own interests and the Germans agreeing grudgingly."

Ralph Atkins

OBSERVER

Sound-bitten Schröder

Gerhard Schröder may be trendy and telegenic, but you can have too much of a good thing. Germany's chancellor, who received plaudits for his performance on the small screen prior to his election win last September, has recently collected nothing but brickbats from the press for his appearances on several of the talk shows which clutter the country's airwaves.

Some impertinent commentators have even asked whether Mr Schröder is in fact just a TV personality who pretends to govern the country in the moments when he's not on air.

Of course, he's far too experienced a statesman to take heed of such bitchy rantings – especially when they emanate from the keyboards of dreary newspaper hacks.

So the announcement that other pressing engagements have forced him to cancel an appearance next week on Harald Schmidt's *Late Night Show*, one of Germany's more popular chat shows, strikes Observer as somewhat strange. As does the fact that Mr Schröder is now unlikely to take the commentary box next month for a Bundesliga football game.

Then again, maybe the populist Mr Schröder – who didn't get where he is today without a keen sense of which way the wind's blowing – realised there's such a thing as a sound-bite too far.

Offside

Members of the British-Polish Chamber of Commerce are as sick as parrots. Two hundred football fans from the Warsaw-based chamber have been working themselves up for March 27 when England play Poland at London's Wembley stadium. But they've now been told they don't qualify as English supporters and must apply to the Polish authority for tickets.

The stadium set them aside last November, when the trip was first planned. But the subsequent change of heart has sparked increasingly desperate efforts from British diplomats in Warsaw to get the businessmen through the turnstiles.

But Poland says the 6,200 tickets they held have been passed on to local agents, who now can't spare any. So the chamber is left with a load of air tickets and hotel room bookings – and a sad fax from Wembley, showing where they were supposed to sit.

Sardelis signs on

Patience has paid off for Chris Sardelis, the Greek economist who used to represent Sweden at the European Union's monetary committee.

A former head of research at Sweden's central bank, Sardelis was invited home to help the Socialist government trim the country's bulging public debt. But the finance ministry's bureaucrats weren't interested in new-fangled ideas about debt management, so Sardelis jumped ship to join the capital markets team at Bank of America in Athens.

Now Greece is a candidate to join the euro debt management is a hot issue. A shake-up at the finance ministry has pushed the old guard into retirement and Greece's debt management office will open for business around Easter.

And guess who'll be top gun? Sardelis, of course. He'll have his work cut out, though. May 2000 is the deadline for Brussels to rule on Greece's application for euro membership and national debt is still a long way above the Maastricht ceiling. Time for some serious number-crunching.

Ganging up

Another milestone for Britannia, the landlocked British tub that clocked up more than 1m regal miles carrying the Queen around the world for 45 years. The vessel has been welcoming hoi polloi aboard at Leith, near Edinburgh, for just four months – and already 100,000 people have ogled their way around her.

Officials claim the flow of people keen to see the chintzy staterooms and tread the polished decks has just reached a record; so she's fast becoming one of Britain's top tourist attractions. More than half the visitors come from beyond Scotland – and more than one third are going to Edinburgh just to see her. Observer is delighted she can still stir the nation's breast – even if the British Treasury wouldn't cough up the cash to keep her going.

Baan backs out

Beleaguered Dutch software group Baan is backing out of those big bashes so beloved by the computer industry. After cancelling a customer convention in Germany, it's now abolished Baanworld USA, which would have drawn a cast of thousands to Nashville.

Chairman Tom Tinsley says it just wasn't appropriate any longer for a company that, after a painful shake-out, wants to talk "more intimately" to its customers.

Pity, because the military precision with which such product parades need to be organised could have drawn on the talents of General Henk van den Breemen, the Netherlands' former armed forces chief, who's among five new recruits to Baan's supervisory board. The general may instead have to advise on how to shape the thinned ranks of sales staff into a fighting team.

The Financial Times

100 years ago

A Man Of Many Names

The libel action against us by the man who styles himself the Vicomte Robert Gilles de Meyral Montcalm has just been dismissed with costs. We have had such a happy paper-chase after the man that we have grown positively fond of him. In his statement of claim against us, he asserted that our remarks meant that he was "a person who passed under many different names for dishonest purposes and had changed his name for the purpose of fraudulent concealment." In 1894 the Vicomte was R. de Meyral, but just about this time he showed to a man in Paris a paper indicating that his name was de Meyral Montcalm, and informed him that he was the son of Vicomte de Meyral and Madame de Montcalm. We have a collection of his visiting cards, and we find that in 1896 he was Mr R.G. de Meyral, having at last discovered the missing Gilles. Although the card did not carry the name Vicomte, it bore a coronet, which was a delicate way of suggesting the same thing. A year later, however, he took off the coronet and described himself the Vicomte de Meyral G. Montcalm.

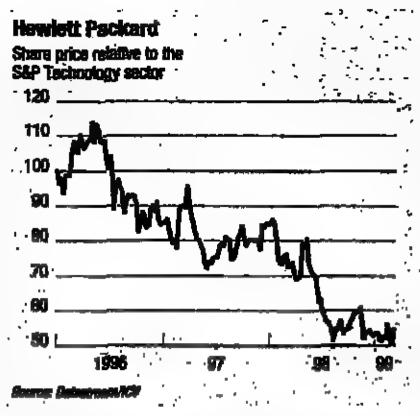
FINANCIAL TIMES
WEDNESDAY MARCH 3 1999

THE LEX COLUMN

Hewlett repackaged

Hewlett-Packard needed to restructure. It has, after all, underperformed other US technology stocks by 50 per cent in the past three years.

But yesterday's grand-sounding plan to split the company into two is unimpressive. It amounts to HP's demerging its ragbag of test & measurement, medical electronics and chemical analysis operations. Combined, these accounted for just $7.6bn or 16 per cent of group sales last year, when their revenues dropped 2 per cent. If this is spinning off a hidden jewel the gems are made of paste. Whether this new company – already being touted as Silicon Valley's largest-ever initial public offering – will achieve a better valuation than HP's own 20 times prospective earnings is doubtful.



Where the restructuring may pay off is in the added focus it brings to the main computer and printer business. Despite a great brand and decent products, sales growth at HP's core business has slowed to around 2 per cent. The group admits its lack of an internet presence relative to IBM and Sun Microsystems is costing it market share, particularly in big Unix server computers. A $100m advertising campaign and a reduced range of activities should help it catch up. The search for a new chief executive to succeed long-time chairman Lew Platt is also encouraging. But it will take time and hard work to revive HP's sagging revenue growth.

Bacardi-Martini

If family-owned Bacardi does decide to float, it will probably slip down rather nicely. With its main rivals all diversified – Seagram in entertainment, Diageo in foods and Allied Domecq in pubs – Bacardi would be the largest pure-play spirits group to grace the markets. Number four worldwide and blessed with strong cashflow, it should be well placed to thrive in the sector's current round of consolidation. Might Allied Domecq finally find its tango partner?

But buying Dewar's and Bombay has left the Bermuda-based company with an uncomfortable level of debt – estimated at more than $2bn – which could impede its freedom to move quickly if hot brands, such as José Cuervo tequila, come up for grabs. Assuming a 7-8 per cent borrowing cost, for example, gives a $150m interest charge. Grossing up 1997-98 net income of $220m and about $100m from the acquired labels, plus some growth, suggests Bacardi is making roughly $500m at the operating level. This implies tightish interest cover of 3-4 times. No wonder Chip Reid, Bacardi's outsider chief executive, is considering tapping the equity markets.

How much could it be worth? Putting its earnings on a multiple of 17 times – a decent discount to Diageo's 20 times – would imply an equity value of around $5bn. Not bad, even for 137 years' work.

UK insurance

When Norwich Union bought London & Edinburgh last October, the market booed because expansion in unfashionable general insurance diluted its life assurance bias. Similarly Sun Life & Provincial has lost some of its shine in going for Guardian Royal Exchange. Have this pair got it right in calling the bottom of the general insurance cycle? The omens are better than they have been since 1996, when the Royal & Sun Alliance merger heralded a period of consolidation. Its merger gains were competed away. The AA statistics on premiums show how the damage had already been done by a price war. Rising claim costs have compounded the error – hence a halving of 1998 general insurance profits at CGU, for instance.

But now, with the top five set to control about 70 per cent of the general insurance market, they are all singing from the same hymn sheet. Motor premiums, at least, are set to rise by 10 per cent this year. While some scepticism remains in order – other premiums remain soft, the economic slowdown bodes ill for claims – the worst should be over. But as this does not spell a rebound in profits, it is the companies with savings from the past year's deals that should benefit most.

This better outlook, coupled with a puncturing of the market's over-enthusiasm for life assurance, has narrowed the gulf between the related sectors' ratings. But whereas general insurance deals have pointed to value in that sector, on the life side only the wounded – such as NPI – have come down to a reasonable level.

Mexico

With recession and devaluation haunting Latin America, Mexico makes an unlikely candidate for stock market star. Nevertheless, the Mexican Bolsa was the best performer among the world's leading indices last month, gaining 9 per cent in dollar terms. Whereas Mexico suffered from emerging market contagion in 1998, this year it has emphatically decoupled from its neighbours to the south. So far in 1999, the Bolsa has risen over 6 per cent in hard currency terms; Argentina is down 11 per cent and Brazil, Venezuela and Colombia have fallen more than 20 per cent.

Part of the reason is Mexico's close ties with its northern neighbour. The strength of the US is buoying the Mexican economy, which should grow 2½-3 per cent this year as Brazil and Argentina decline. But Mexico's government deserves credit for passing a tight budget, keeping the fiscal deficit at a reasonable 1¼ per cent of gross domestic product despite the drop in oil revenues. That has allowed interest rates to fall to 26 per cent from 32 per cent last autumn, without undermining the peso. Indeed Mexico's freely floating currency hardly wobbled as Brazil devalued.

Against this relatively healthy background, company profits rose around 15 per cent last year, with perhaps 10 per cent pencilled in for 1999 – leaving the market trading on a mere 10 times earnings. High inflation is a worry, but otherwise Mexico looks like the best bet in Latin America.

US faces banana sanctions dilemma after WTO delay

By Frances Williams in Geneva and Guy de Jonquières in London

The US was yesterday put on the spot over whether to impose trade sanctions today against the European Union in their banana dispute after an unexpected delay in a crucial World Trade Organisation decision.

Washington had planned to ask the WTO's dispute settlement body this morning to authorise sanctions, based on the recommendations of a report by WTO arbitrators that had been expected yesterday.

However, the arbitrators gave the US and EU only an initial report on how they intended to proceed in assessing the amount of sanctions. They have also requested additional information from the two sides by mid-March.

The unexpected delay creates a dilemma for US President Bill Clinton's administration, which has promised Congress that it will impose sanctions by today if the EU has not complied with a 1997 WTO ruling against its banana regime.

Although the EU has modified the regime, which favours imports from Africa, the Caribbean and the Pacific, the US says it still discriminates against US distributors of Latin American bananas.

A spokesman for the US trade representative said he was disappointed that the arbitrators had not completed their report by the deadline specified by WTO rules. "We will be reviewing our decision in more detail to determine our course of action," he said, adding that a further statement was likely today.

The EU said the arbitrators clearly supported its view that sanctions could not be assessed until the EU had been found guilty or not of violating WTO rules. A spokesman for Sir Leon Brittan, EU trade commissioner, said that until the arbitrators had reported there could be no justification for sanctions.

The three-man panel of arbitrators said it would decide on the amount of sanctions "based on the WTO inconsistency, if any, of the revised EC banana regime". The same panel is due to report on this issue no later than April 12.

The EU requested arbitration after the US sought WTO authorisation in late January to impose punitive tariffs worth $520m on European exports. Brussels, backed by important WTO members, argued that the WTO could not endorse sanctions unless a WTO disputes panel had pronounced its regime illegal.

The WTO's dispute settlement body yesterday agreed a second request by Brussels for a panel to examine the Section 301 provisions of US trade law, on which the threatened sanctions are based.

The US blocked an EU request for a panel to examine this question last month but under WTO rules could not do so again. Washington denies EU charges that the legislation violates WTO precepts against unilateral trade actions.

Brussels says it was provoked into bringing the case by the threatened trade sanctions, as well as by the possibility of Section 301's being used in similar ways in future, for instance over the EU's ban on hormone-treated beef.

The panel has six months to produce its report on Section 301 once the three panellists are chosen.

Hopes rise for Kosovo deal as KLA sacks hardline strategist

By Guy Dinmore in Belgrade

Rebel commanders of the ethnic Albanian Kosovo Liberation Army (KLA) have dismissed Adem Demaci, a powerful hardliner who prevented their delegation from signing a peace agreement last week.

The removal of Mr Demaci, whose actions wrecked the US strategy of threatening Serbia with air strikes, follows a power struggle within the KLA. It ushers in a younger generation of rebel leaders ready to accept a western-backed interim plan that would give the Serbian province broad autonomy for three years, enforced by Nato peacekeepers.

Western mediators were delighted and expressed confidence the Kosovo Albanian delegation would sign the agreement when peace talks resume in France on March 15.

But diplomats cautioned that the US did not have the support of its European allies to use air strikes to force Slobodan Milosevic, the Yugoslav president, to accept the proposed 28,000-strong Nato force, without which any political settlement would have little chance of success.

At a press conference in the regional capital Pristina yesterday, Mr Demaci, who spent 28 years as a political prisoner, announced his resignation as the political representative of the KLA. But people close to the rebels said he had been dismissed by regional commanders meeting in their central Drenica stronghold at the weekend.

"They (the KLA) are good fighters but when it comes to politics they have no idea what to do," Mr Demaci said.

The KLA is under public pressure to sign the agreement that would in effect make Kosovo an international protectorate. But some rebel leaders remain opposed to provisions that call for the KLA to be disarmed while Serbian forces leave Kosovo under Nato supervision.

Mr Demaci's dismissal strengthens Hasim Thaci, the chief Kosovo Albanian negotiator, who is expected to lead a six-member KLA delegation to the US before peace talks resume. The KLA has named Mr Thaci, 29, as "prime minister" of an interim coalition government to run Kosovo should a deal be reached.

During 17 days of talks outside Paris last month, Madeleine Albright, the US secretary of state, compared Mr Thaci to Gerry Adams, leader of the political wing of the Irish Republican Army who played a key role in the Northern Ireland peace process.

But she was furious when Mr Thaci left the Rambouillet château to consult Mr Demaci – who had refused to attend the talks – and then returned to announce a change of heart. Instead of signing, the delegation accepted the deal "in principle" and returned home.

Politika, Serbia's main official newspaper, yesterday launched a scathing attack on Ms Albright and Christopher Hill, the chief US mediator. An editorial accused them of supporting "terrorists" by inviting the KLA to Washington and "taking responsibility for genocide against the Serbian people".

CONTENTS

Monica Lewinsky's interviews with UK broadcaster Jon Snow, above, and Barbara Walters in the US will be *big money-spinners*. Report, Page 8

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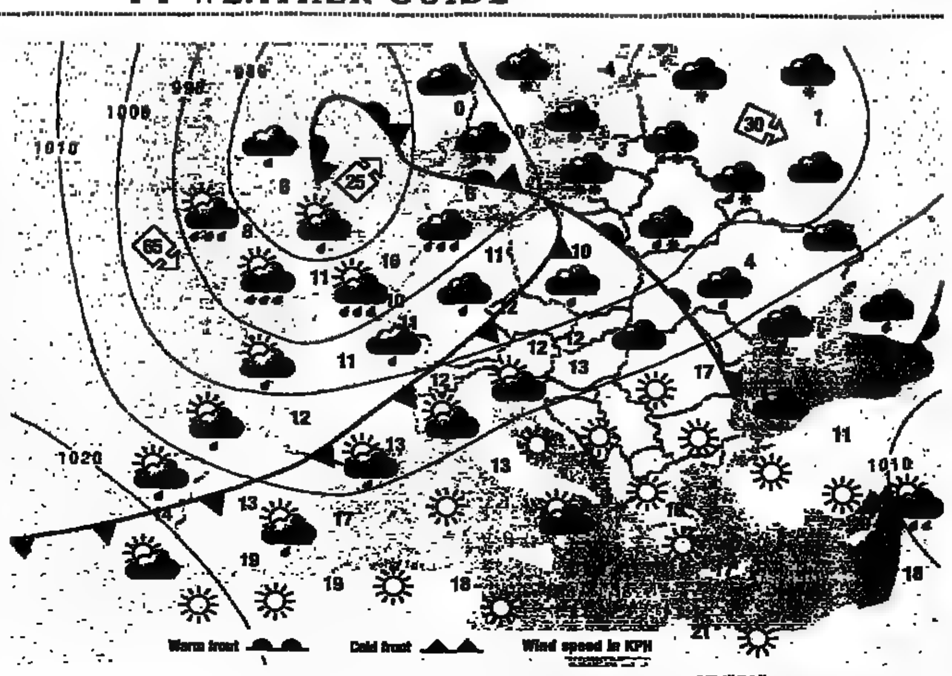
FT WEATHER GUIDE

Europe today

France, the Low Countries and Germany will be windy with rain and showers. The Alpine regions may start fine but rain will spread in from the west with snow above 1,700 metres. The rain on the lower slopes will accelerate the thaw but colder air will arrive tonight with the snow-level dropping. Denmark, the southern tip of Sweden and the southern Baltic States will be dull with rain, but snow is likely in the north and north-east. Most of southern Europe will be warm and settled although cooler, showery weather will affect central and northern parts of Spain and Portugal.

Five-day forecast

All of western and north-western Europe will be unsettled with rain and showers. The showers will turn wintry on high ground during Friday and Saturday with heavy falls of snow over the Alps. South-east Europe will remain warm but heavy showers will develop.



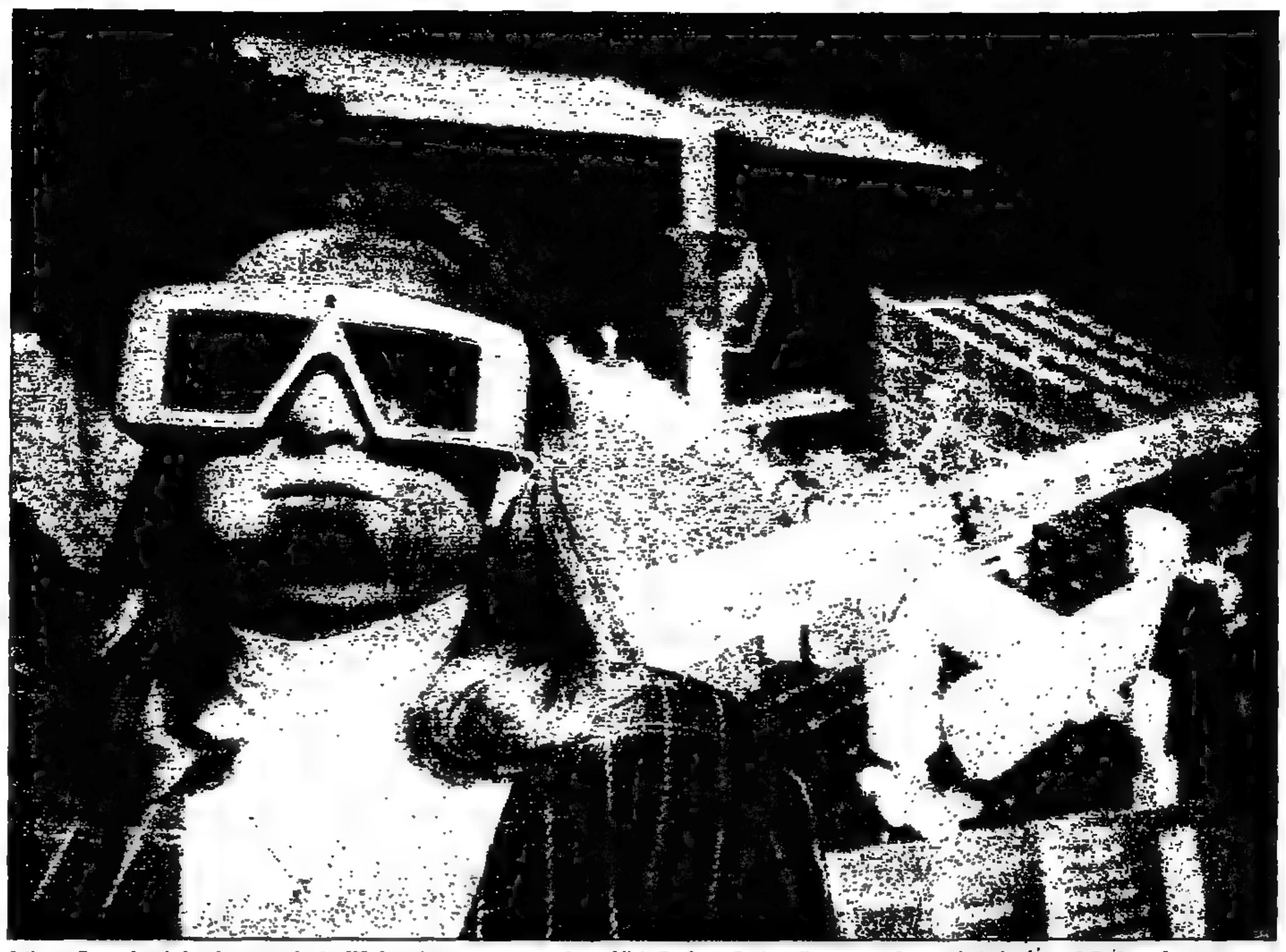
Situation at midday. Temperatures maximum for day. Forecasts by PA WEATHERCENTRE

TODAY'S TEMPERATURES (Maximum Celsius)

Abu Dhabi	Sun	26
Accra	Fair	32
Algiers	Sun	19
Amsterdam	Shower	10
Athens	Sun	16
Atlanta	Sun	9
B. Aires	Fair	30
B.ham	Shower	10
Bangkok	Shower	35
Barcelona	Fair	15
Beijing	Sun	11
Belfast	Shower	7
Belgrade	Sun	18
Berlin	Shower	11
Bermuda	Cloudy	22
Bogota	Fair	20
Bombay	Fair	36
Brussels	Shower	10
Budapest	Fair	13
C.hagen	Shower	8
Cairo	Fair	21
Caracas	Sun	29
Cardiff	Shower	9
Casablanca	Fair	18
Chicago	Fair	1
Cologne	Shower	11
Dakar	Sun	24
Dallas	Sun	18
Delhi	Sun	29
Dubai	Sun	29
Dublin	Shower	8
Dubrovnik	Sun	15
Edinburgh	Shower	7
Faro	Fair	17
Frankfurt	Shower	12
Geneva	Rain	12
Gibraltar	Sun	19
Glasgow	Shower	7
Hamburg	Shower	11
Helsinki	Fair	-4
Hong Kong	Fair	24
Honolulu	Fair	27
Istanbul	Sun	12
Jakarta	Thunder	31
Jersey	Shower	9
Johannesburg	Fair	29
Karachi	Fair	32
Kuwait	Fair	25
L. Angeles	Fair	18
Las Palmas	Fair	21
Lima	Fair	29
Lisbon	Fair	14
London	Shower	11
Lux.bourg	Rain	11
Lyon	Rain	12
Madeira	Fair	18
Madrid	Fair	13
Majorca	Fair	17
Malta	Fair	17
Manchester	Shower	8
Manila	Thunder	32
Melbourne	Shower	25
Mexico City	Sun	27
Miami	Shower	28
Milan	Fair	12
Montreal	Cloudy	4
Moscow	Sleet	1
Munich	Fair	12
Nairobi	Fair	30
Naples	Fair	15
Nassau	Fair	28
New York	Rain	16
Nice	Fair	13
Nicosia	Fair	20
Oslo	Sleet	0
Paris	Shower	11
Perth	Sun	26
Prague	Cloudy	12
Rangoon	Fair	35
Reykjavik	Fair	-2
Rio	Fair	31
Rome	Fair	13
S. Frsco	Shower	14
Seoul	Fair	10
Singapore	Shower	31
Stockholm	Snow	0
Strasbourg	Rain	12
Sydney	Shower	25
Tangier	Fair	18
Tel Aviv	Fair	18
Tokyo	Fair	13
Toronto	Snow	4
Vancouver	Rain	7
Venice	Fair	8
Vienna	Cloudy	12
Warsaw	Rain	10
Washington	Rain	16
Wellington	Fair	18
Winnipeg	Fair	-7
Zurich	Rain	9

US drives progress in the Internet age

Companies in the IT sector are jostling furiously for position as networks start to dominate industry and commerce, writes **Louise Kehoe** in San Francisco



A three-dimensional view in space: in the US, Langley aerospace engineer Michelle Gam displays the stereo glasses that give her a 3-D view of a space station mock-up, projected on the screen behind her at the 'holodeck', the 'immersive engineering room' at NASA's research centre in Hampton, Virginia. With 3-D glasses, headphones and a powerful computer, the system allows engineers to jump into a simulated 3-D environment, viewing an object from all sides and manipulating it for improved performance AP

Even as businesses and consumers around the world embrace the Internet, the US information technology industry is driving ahead with advances that promise to bring the new medium into the living rooms and onto the desks of millions more – many of whom do not even consider themselves to be "computer users".

Broadband communications networks, very high-powered personal computers and a new generation of "information appliances" – ranging from smart telephones to TV set-top boxes and even microwave ovens with built-in Internet connections – are on the horizon.

In the hyperspeed world of the Internet, this means that many such products will be widely available by year's end. In the PC arena, for example, Intel's new Pentium III chips, launched just last month, will bring full-screen, full-motion video to the PC screen.

By next Christmas, these PCs, selling for under $2,000 in the US, will be "mainstream" consumer PC products, Intel confidently predicts. Pentium III boosts the power of the PC to enable it to reconstruct data streams that have been "squeezed", using data compression techniques, so that they can be delivered to the desktop via regular telephone lines.

It overcomes the current bottleneck on the Internet, created by the lack of high-speed connections, or "fat pipes", as they are called in the industry. However, telephone and TV cable companies are beginning to make high-speed Internet links more widely available in the US and several other countries, raising questions about whether consumers and business users will need such power on their desktops.

Leading US non-PC computer companies such as Sun Microsystems and Oracle, have long promoted the idea of "thin clients" or very basic computers for the desktop and home, which rely upon high-speed networks to deliver data and software programs.

The race is on to determine which approach will work best. However, in the short term, high-powered PCs have the edge. Despite progress in updating telephone and cable TV networks, the majority of home computer users and small businesses have yet to gain access to such services.

No matter which approach wins out eventually, Pentium III is offering a glimpse into the future of the Internet as a medium for video broadcasting, rather than distribution of text and graphics.

Just as newspapers, magazines and other "traditional" media have already faced the challenge of almost instant online news publishing, so TV news broadcasters will soon have to compete with the Internet video broadcasting capabilities of thousands of web sites. Already, broadcasters such as CNN are planning online video news services that enable users to create "news programmes" focused on their individual interests and priorities, rather than those of a television news editor.

If the user is primarily interested, for example, in news from Europe or South America, he or she could choose to watch only the items that are relevant. Adding high-performance video and audio to the Internet also creates new challenges for the traditional "entertainment" industry.

Already, it is possible for PC users to play computer games against distant opponents via the Internet. However, most of these games currently have limited graphics capabilities. Before long, action adventure games with high-quality graphics will become Internet services.

Watching films via the Internet may be the next step. Already, Internet services that broadcast music videos and clips from full-length movies are set to be launched. It is not difficult to imagine these services being combined with the option to purchase videotapes, DVD disks or tickets to a local cinema.

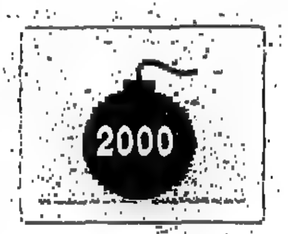
But this is just the beginning. As electronic commerce incorporates video via the Internet, online shopping is expected to gain ground on traditional "brick and mortar" retailers. Imagine, for example, "test driving" a car via the Internet. With high quality three-dimensional graphics and videos a prospective buyer could examine every aspect of a vehicle – from the front grille to the floor mats – without stepping outside the home or office.

Another potentially important trend is the emergence of "home networks" that link computers and "information appliances" throughout the home. John Chambers, chief executive of Cisco Systems, the leading supplier of equipment used to direct data traffic on the Internet, presents a futuristic view of the home network.

You are driving home from work and press a few icons on your car computer (which pops out of the dashboard at the press of a button) to turn on the heating or air-conditioning at home. Better heat up the oven too, if you plan a roast for dinner. Alternatively, when you get home you might scan that frozen dinner across the "reader" on the microwave oven and it will automatically set the kitchen appliance to heat the food for the required length of time.

Turn to next page

In this section



SOUTH AMERICA by John Barham in Sao Paulo

Carnival spirit lifts the mood as IT defies gloom

In spite of Brazil's economic woes, spending on computer hardware, software and services is likely to surge ahead

Mr Dagoberto Hajjar, Microsoft's marketing director in Brazil, cut an incongruous figure during February's carnival celebration as he and his colleagues, decked out in skimpy green and white outfits, danced to a samba written by the Unidos do Peruche Samba Group.

Unidos do Peruche Samba Group had picked Bill Gates and high technology as the theme for their carnival parade and press-ganged Mr Hajjar into the Software Pirate's section. Other Microsoft executives joined in the fun on the high technology and computer virus sections. All bellowed out the words of the group's song celebrating Bill Gates "that great genius".

Information technology has clearly entered Brazilian popular culture. The country is staggering into a severe economic crisis, made worse by January's devaluation which cut the value of the Real by more than 30 per cent.

Economists forecast a 3-5 per cent decline in GDP this year. But spending on computer hardware, software and services is likely to continue forging ahead.

Argentina and Chile may be somewhat more sophisticated users of IT than Brazil, but economic liberalisation and the spread of advanced technology there preceded Brazil by many years. Growth rates are, therefore, lower and their markets considerably smaller than Brazil's. And none of them can attract the heavy volume of private foreign investment that has poured into Brazil in recent years, drawn mainly by the privatisation programme. New owners of state companies have had to spend lavishly on the latest technology to replace obsolete and sometimes non-functioning systems.

In terms of Internet traffic in South America, recent reports indicate that Argentina is the busiest, followed by Brazil, Chile and Colombia.

Making sense of IT trends in the region is difficult. Market data and forecasts are unreliable and this is particularly true in the computer industry. One consultant said bluntly: "The publicly available figures I have seen are for the most part shamelessly inflated."

Outside Argentina, Brazil and Chile, computer technology has spread sporadically although more developed exporting regions such as Colombia have deployed IT on a considerable scale.

Companies expanding in Latin America have mostly decided to locate in Brazil. Compaq, leader of the Brazilian PC market, set up a factory in 1995 to make Presario consumer desktop PCs and, later, low-end Prosignia servers.

Luiz Carlos Pimentel, Compaq's sales and marketing director, says: "By tradition, Compaq has dedicated factories on each continent. So we had to choose a place for our basic location. Government incentives for new factories and the potential of

Large companies in Argentina and Chile are relatively sophisticated users of IT systems

Brazilian market were decisive."

Latin markets – particularly Argentina, Brazil, Chile, Colombia and Venezuela – are "in general all very similar in nature because they have a multinational presence which is a big part of our [market] because they standardise their IT investment".

To a large extent, it is the corporate clients rather than the broad domestic consumer market that is driving demand across the continent, particularly in Brazil. Large inward investments in manufacturing particularly in the car industry and privatisations, such as last year's $18.9bn telecoms sell-off, have boosted demand heavily. In spite of its travails, Brazil is likely to remain the industry's regional focus. The only doubt concerns the market's rate of growth. Mr Hajjar expects sales growth this year to halve to 20 per cent, after rising by 40 per cent in 1996 and 1997.

Fernando Ximenes, partner at the Rio de Janeiro office of KPMG Consulting says he has seen few signs of a downturn. "Companies have no choice. They have to spend money – on dealing with the millennium bug on management information systems, on integrating into international logistics and information networks because the Brazilian economy is becoming more globalised."

Spending on Internet commerce packages, data warehouses, intranets and e-mail systems is rising. Outsourcing contracts are increasingly commonplace. Mr Ximenes says the reason for this is simple: "Market forces are making companies get their overheads down." The quickest, cheapest and most effective way to achieve this is to deploy IT massively.

Brazil's banks created a wealth of technology and applications during the 1980s and early 1990s to run sophisticated financial packages to protect cash from inflation. Banks extended this expertise into Internet banking, which itself created a base for other net-based projects. The 1998 Presidential election made heavy use of the Internet and for three years now, Brazilians have been able to file their income tax returns instantly, if not painlessly, via the Internet.

Piracy still represents a considerable inconvenience for the formal IT industry. Although corporate use of bootleg software is largely a thing of the past, the practice is widespread in the consumer market. Some retailers sell copies as originals. Competition from clone assemblers operating in the informal economy is also widespread. And smuggling of US- and Japanese-made computers especially laptops remains a scourge, especially in Brazil where import tariffs, taxes and profit margins are high.

The under-developed Brazilian domestic market is the next great hope for the Latin IT industry. For the time being, unequal incomes, poor education levels and bad telecoms hamper development of a broad-based PC and Internet market.

But if the economy recovers quickly from this year's savage downturn, the chorus of Unidos do Peruche's Samba as belted out by Mr Hajjar and his associates may come true faster than many think. "Peruche, carry me forwards. I am entering the era of the computer".

Bill Gates: Brazilian carnival-goers celebrated him as 'that great genius' now that information technology is making an impact on the country's popular culture

US COMPANIES

To survive, businesses 'must have the courage to move at Internet speed'

From previous page:

Looking for a romantic evening? Then just press "ambience" on the car computer and set the lighting, heating and music in your livingroom to suit your mood. The innovative Mr Chambers has even linked a computer-controlled piano and violin to his home network to create that "special" feeling.

Most of us may not go to such lengths but the home network is in our futures, linking existing PCs, printers and electronic devices across networks that may be wireless or send data over existing telephone lines or even electricity circuits in the home, US high-tech executives predict. Whether it is three, five or 10 years from now, home networks will be as commonplace as stereo systems before too long, they say.

In offices, faster networks and more powerful computers will make video telephony and desktop video conferencing an everyday routine. Decision support systems, created by linking internal and external databases to desktop computers, will become commonplace. Older mainframe and minicomputer based systems will be incorporated with the latest Internet technology to create "networked data centres".

Shake-ups across the IT industry

The social and economic implications of these technology advances are clearly very broad. Even within the US IT industry, the transition from established models of computing to inter-networking is shaking up the establishment.

Digital Equipment, once the second largest US computer company after IBM, has been acquired by Compaq Computer, the biggest PC manufacturer. Cisco has grown to become the world's leading supplier of data networking equipment, in part due to a string of acquisitions – most of them small – that now number 15-20 a year.

Even as clear leaders emerge in the computer, software and semiconductor industries, the first generation of Internet leaders is also consolidating. In the past few months, America Online, the top Internet access service, has moved to acquire Netscape Communications, the early leader in Internet software.

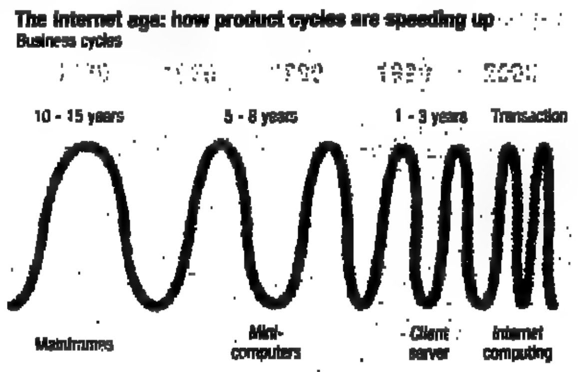
Yahoo!, the top Internet "portal" is consolidating its position by acquiring Geocities, an online "community" company. Excite, one of Yahoo!'s rivals, has combined with @Home, a pioneer of high-speed Internet links via TV cable networks.

In one of the latest and most controversial deals, USA Networks, the television and online services company led by Barry Diller, an "old media" mogul, has moved to acquire Lycos, one of the few remaining independent "new media" leaders.

This new frenzy of mergers and acquisitions is being driven in large part by the widely-held belief that it is vital to be ahead of the pack in establishing a brand-name presence on the Internet. Yet even as "old-time" companies and "Internet-speed" companies combine and compete, the technology upon which they are basing their business decisions is changing rapidly.

John Chambers: 'It will no longer be an issue of whether the big beat the small, but whether the fast beat the slow'

The Internet age: how product cycles are speeding up
Business cycles



Source: Compaq report

Top 20 IT companies
By market capitalisation

Rank	Company	Country	Market cap ($m)
1	Microsoft	US	378522.0
2	Intel	US	221398.4
3	IBM	US	162974.1
4	Cisco Systems	US	161181.1
5	Lucent Technologies	US	140838.3
6	Dell Computer	US	107982.4
7	America Online	US	80788.0
8	Nokia	Finland	80190.4
9	Ericsson	Sweden	54160.1
10	Oracle	US	52364.3
11	EMC	US	52286.1
12	Motorola	US	41824.9
13	Northern Telecom	Canada	41204.3
14	Sun Microsystems	US	40221.1
15	Xerox	US	39555.2
16	Texas Instruments	US	38552.0
17	Yahoo	US	28768.4
18	BCE	Canada	27775.1
19	ADP	US	25541.7
20	Applied Materials	US	25340.6

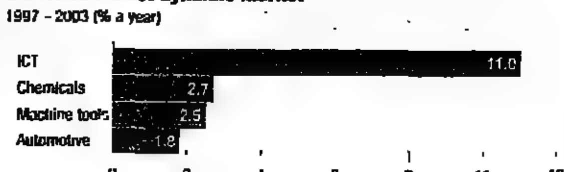
Source: FT • Based on share price at Feb 22 (excluding telecoms equipment companies)

Top 20 telecom companies
By market capitalisation

Rank	Company	Country	Market cap ($m)
1	MCI Worldcom	US	155841.8
2	AT&T	US	151794.0
3	NTT	Japan	124953.3
4	Deutsche Telekom	Germany	118852.7
5	British Telecom	UK	111218.3
6	SBC Communications	US	106725.0
7	Bellsouth	US	93869.0
8	France Telecom	France	93819.6
9	Bell Atlantic	US	93234.0
10	NTT DoCoMo	Japan	75594.2
11	Ameritech	US	73090.0
12	Telstra	Austria	71120.2
13	GTE	US	65144.9
14	Vodafone	UK	57196.5
15	Telecom Italia	Italy	57163.1
16	AirTouch Communications	US	53916.8
17	Telefonica	Spain	48148.6
18	T.I.M.	Italy	44871.1
19	Cable & Wireless	UK	33271.0
20	US West	US	31282.1

Source: FT • Based on share price at Feb 22

Information and communication technologies (ICT): the world's most dynamic market
1997 – 2003 (% a year)



Source: Prognos Siemens

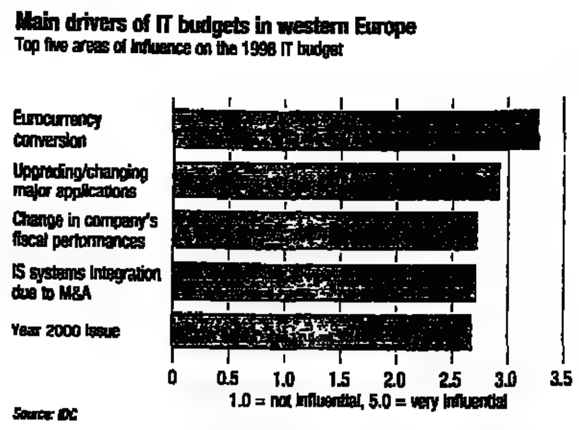
Cisco's Mr Chambers sums up what it all means for businesses: "It will no longer be an issue of whether the big beat the small, but whether the fast beat the slow."

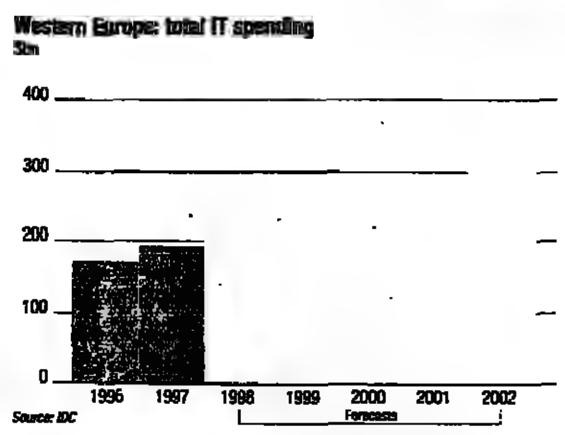
Only businesses that "have the courage to move at Internet speed" will survive, he says. By 2004, the majority of cars will be sold via the Internet, he predicts. Stock market analysis will become a commodity. Companies that fail to keep pace will face new online competitors, much as book sellers have already been "Amazoned".

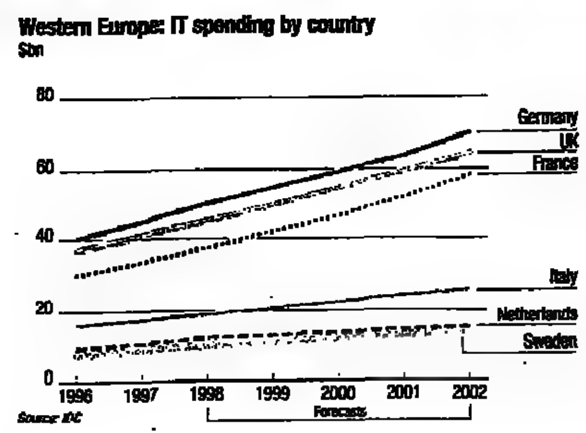
EUROPE by Geoffrey Nairn

Key target for global IT vendors

As businesses across Europe rapidly adopt new technology, the world's main suppliers see the region as a counterweight to the Asian slowdown







The advent of the euro and a favourable economic climate have blessed Europe's information technology market with ruddy health and growth approaching 10 per cent a year. But the future for Europe's domestic IT industry does not look quite so rosy, with US companies better placed to exploit the current boom.

Despite growing interest in new technologies and the Internet, Europeans frequently complain of the lack of an "enterprise culture" and the critical mass of start-ups needed to challenge US dominance of the new digital economy. "There are 100,000 Frenchmen working in the [San Francisco] Bay Area," says Guy de Panafieu, chairman of Bull, the recently privatised French IT giant.

Many of them learned their high-tech skills in France – often at Bull's expense – before jumping ship to take up more attractive opportunities in Silicon Valley. "We have great difficulty retaining key people," admits Mr de Panafieu. In the 1980s, Bull along with ICL, Siemens and Olivetti formed the cornerstones of Europe's computer industry and were technology pioneers.

But critics today see them as lumbering giants destined to lag their US competitors. Only Bull and Siemens can still claim to be European computer companies. ICL is now a subsidiary of Fujitsu of Japan, while Italy's Olivetti has reinvented itself as a telephone company. The European IT market has become an attractive target for foreign companies. The top four personal computer vendors in Europe are American – Siemens of Germany is number five – and US high-tech start-ups are rushing to open European offices.

According to the European Information Technology Observatory (EITO), IT expenditure in western Europe rose by 9.3 per cent in 1998 – a growth rate that rivals that of the US. The euro has triggered this boom and euro-related spending will top €23bn ($26bn) this year, around 11 per cent of the total IT market.

The boom looks likely to continue. The year 2000 date problem will boost IT expenditure this year, particularly among Europe's smaller companies which have yet to wake up to the threat. To sustain growth beyond 2000, analysts point to Europe's growing enthusiasm for new technologies and a greater appreciation of their importance in today's business environment.

"The level of awareness of IT in Europe has increased and that for me is a very positive sign," says Soumitra Dutta, professor of technology management at Insead, the international business school near Paris. According to IDC, the US consultancy, western Europe is now a key region for any global IT vendor, acting as a counterweight to the Asian slowdown and rapidly catching the US in terms of technology adoption and the importance of IT to business decisions.

Several European companies have successfully exploited these trends. Germany's SAP is world leader in the fast-growing enterprise software market and hopes to double its revenues over the next three years. Europe's enterprise software industry has many smaller rising stars. Navison of Denmark saw its revenues almost double in 1998, Meta4 is a successful Spanish company specialising in human resource software, while Scala, a Dutch company, this year plans to expand its enterprise software to handle electronic commerce.

Meanwhile, the traditional leaders of Europe's IT industry seem to have lost their way. In 1998, Bull sales grew by just 1.4 per cent to FFr24.9bn ($4.23bn) and operating profit was FFr675m, or 2.7 per cent of revenues, compared with FFr988m in 1997. Six months earlier, Bull had predicted that the operating profit for 1998 would reach FFr1bn. Mr de Panafieu says the results were hit by adverse factors, such as the crisis in Asia and Russia and the shutdown of PC assembly in Brazil.

In addition, Bull had to spend more on research and retraining. "1998 was a year of transition, 1999 will be one of development and only in 2000 will you start to see the results," says Mr de Panafieu.

It is a sadly familiar message from Europe's traditional IT players. Olivetti racked up huge losses in the early 1990s before deciding to abandon almost all its IT activities. Its painful transformation from computer vendor to telephone company is virtually complete. Little remains of the computer company that Carlo de Benedetti successfully led for 20 years.

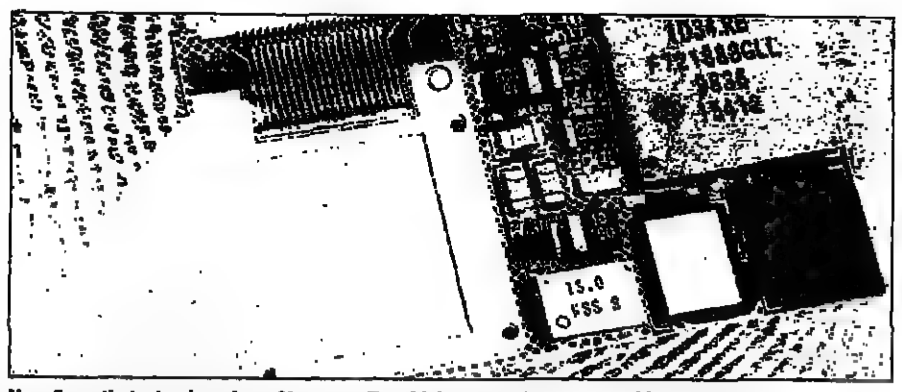
The loss-making PC division, once the jewel in Olivetti's crown, was first to be sold and the buyer, an investment group, has the right to continue using the famous Olivetti brand. Bull also realised that making PCs was a luxury it could no long afford. In 1996, it folded its Zenith Data Systems subsidiary into Japanese-controlled Packard Bell NEC, in which Bull retains a minority stake.

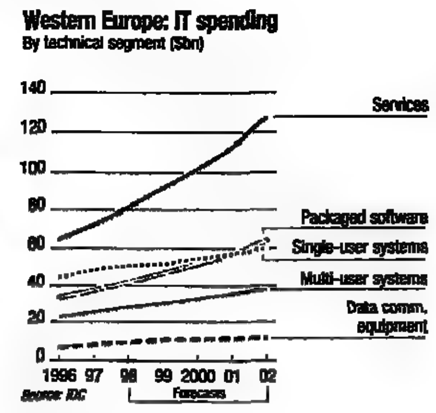
"PCs are an old story for us and the decision to get out of a massively loss-making business was the right one," says Mr de Panafieu. Siemens seems to have come to a similar conclusion; last year it sought and failed to sell its PC manufacturing operations to Acer of Taiwan. To bring more coherence to its IT business, Siemens has integrated its information and communications operations into one big unit with turnover of around DM53bn ($30bn) and is rapidly building up its services and outsourcing activities.

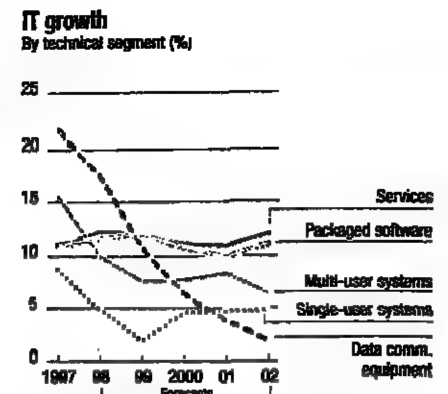
Software and professional services now offer the best prospects in Europe's IT market. EITO predicts that these two segments will grow by 13.5 per cent and 15.2 per cent respectively in 1999, compared with a sluggish 5.1 per cent for hardware.

Bull is strongly emphasising services in its recovery strategy. While its product sales declined by 3.2 per cent in 1998, its services business grew 7.4 per cent and now accounts for 44 per cent of turnover. According to Mr de Panafieu, Bull's systems integration business grew even faster, by 21 per cent, making it Europe's third biggest systems integrator.

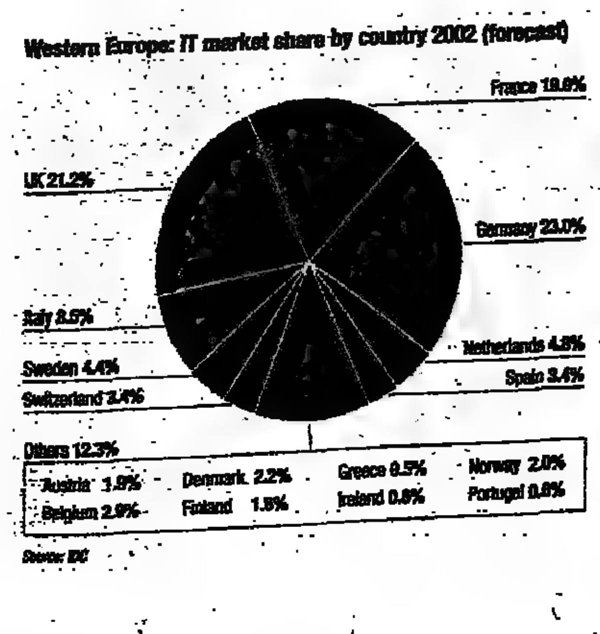
The big US companies have also been quick to spot the potential of Europe's services market. In 1998, Wang of the US bought Olivetti's main services business, known as Olsy. However, it is struggling to digest the acquisition and Wang Global, as the new group is called, last month reported a quarterly loss and $41m in charges relating to the purchase. "Wang's acquisition of Olsy has not returned instant dividends," says IDC. "European service providers are attractive targets, but US hawks should tread carefully."


New fingertip technology from Siemens offers higher security: one tap with your finger and the microchip reads your fingerprint and knows if you have authorized access to equipment






Lamenting the loss of high-tech skills, Guy de Panafieu, chairman of Bull, the recently privatised French IT giant, says: 'There are 100,000 Frenchmen working in the San Francisco Bay Area'



EUROPEAN IT SERVICES
SUPPLIER'S VIEWPOINT

Friedrich Fröschl: 'There's a lot of business out there'

Merger mania brings big opportunities

In the corporate arena, Siemens is targeting both the big multinationals and mid-sized companies

Friedrich Fröschl almost rubs his hands with glee at the thought of the wave of mergers and acquisitions sweeping across global industry. As head of Siemens' business services division, he sees the prospect of more contracts as companies have to integrate not only their business operations but also their information technology systems.

"Merger mania helps us because there's a lot of business re-engineering and process automation taking place," he says. Companies have to focus on their core processes and thus consider whether to outsource some of their activities. "There's plenty of opportunity."

One of Siemens' biggest customers on the business services side is another German concern, Deutsche Bank, now acquiring Bankers Trust of the US. Siemens has installed back-office processing systems in Deutsche's Frankfurt, Singapore, Tokyo and New York operations. Now, it will have to see how Deutsche – Germany's biggest bank – decides to put together its own complex IT systems with those of Bankers Trust.

Since Siemens is up against such formidable US rivals as IBM and EDS in the services and outsourcing market, it is keen to build up its presence as aggressively as possible. But internationally, it has a good deal of catching up to do.

Within the German group's newly integrated information and communications (I&C) operation, with turnover of around DM53bn, Siemens Business Services is the smallest but fastest growing unit. It has sales of around DM7bn ($4.3bn) and some 18,000 people.

Market leader

But while it leads the market in Germany – ahead of IBM and Debis, part of DaimlerChrysler – and is third in the European market behind IBM and EDS and roughly equal with Cap Gemini, SBS ranks only ninth worldwide. "Within five years, we want to be in the top five," says Mr Fröschl. His aim is to cover the whole spectrum of service operations from designing projects to implementing and operating them.

To achieve this highly ambitious goal, however, SBS will need partners, especially in the US market. In Europe, he says SBS aims to be in the top three across the main markets. "We want to build an incredibly strong base in Europe and become profitable outside." SBS's strategy is to enter new markets through outsourcing contracts.

Recently, SBS won a six-year contract from the Argentine government to issue the country's whole population with new non-forgeable, machine-readable identity cards. Siemens, which wil work with US, European and local companies on the DM1bn project, is also in line for an ID card contract in Brazil, using the same technology.

In the UK, it recently beat EDS to a high-profile £1bn ($1.6bn) outsourcing deal for National Savings. This will run for 15 years, with National Savings records to be fully computerised and its sales operations to be extended. Siemens is also involved in the digital processing of British passport applications.

In the corporate arena, Siemens is targeting both the big multinationals and mid-sized companies. For the latter, it offers simpler pre-packaged and pre-configured solutions rather than elaborate custom-made systems. "They do not want all the bells and whistles."

The three main planks of SBS's programme are business transformation, integration and management. Thus it has close links with the main enterprise resource planning (ERP) companies such as SAP, also based in Germany, PeopleSoft and others. Altogether, Siemens has some 2,200 people working on integrating SAP systems with its clients, making it SAP's largest worldwide partner.

Siemens also intends to ride the gathering e-business wave. It has developed online banking services for Garanti Bank in Turkey, Italy's ONBanca and Bank of Austria. SBS provides web site design services to budding commercial users of the Internet.

It has developed "e-speed" as a collection of service packages and modules covering the full range of electronic business from Internet sites to corporate intranets and extranets, electronic document interchange and security. E-speed is being launched in Europe in the first half of this year and then in the US and other selected countries.

Siemens is determined that its energetic push into the global services, outsourcing and e-commerce markets will pay off in terms of increased market share and profitability. It wants services to account for half of I&C operations' turnover in five years. But forcing its rivals to step down a few places will be a stiff challenge.

Andrew Fisher

RUSSIA by Andrew Jack in Moscow

After a gold rush, this market is down, but not out

Russia's IT market is at a low ebb. PC sales have slumped in recent months, but there are some faint signs of hope

Anyone looking for early warning signs of Russia's financial crisis last August could have done worse than to heed the signals coming from its computer sector. Those now hoping for signs of a rapid recovery might do better to look elsewhere.

At the end of 1997, the great Russian Gold Rush was in full swing. With just 4m personal computers for a country of 150m people, it was starting from a low base. But things were changing fast. Robert Farish, research manager for International Data Corporation in Moscow, says: "Russia represented half of all PC sales in eastern Europe, and we were predicting it would become the third largest market in Europe."

That was all to stop. IDC's statistics for the first quarter of 1998 already showed signs of impending gloom, as the shipment of PC units dropped from 456,386 in the final three months of 1997 to 336,523 in the first quarter and just 141,299 by the third. It estimated the total information technology market at $3.5bn in 1997, but just $2.5bn for 1998.

The gloomy message is echoed by Philippe Villaume, general manager of Andersen Consulting in Moscow. "Like a lot of consultants, the market was going very well for us until August," he says. "We were growing at 200 per cent a year, and had a target for 1999 of $8m in revenues. That is obviously now having to be modified."

Since the crisis, the company has cut back its 100-strong staff there by 20 people, and sent another 30 on secondment to other Andersen offices around the world to give them training and experience until the market picks up. But Mr Villaume adds: "I still don't have a clear view of what will happen. My own view is that things may get worse."

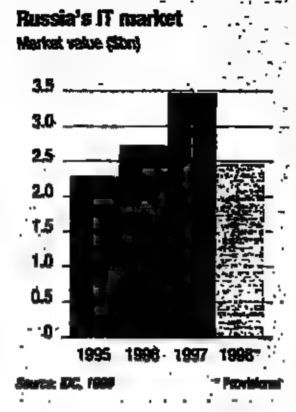
One challenge he faces is getting clients to pay their bills. Andersen increasingly demands up-front payment – of up to 60 per cent – to ensure it is reimbursed for its work. Consultants, generally, have been cautious in taking on work for sectors such as the state – unless financed directly by international aid – because of its notorious reputation for payment.

Another long-term challenge for computer consultants is the peculiar structure of the Russian computer market. Mr Farish says that software and consultancy has traditionally represented a low proportion of business compared with other countries. "People are very bad at buying intangibles here," he says. "There is very much a do-it-yourself mentality."

That is bad news for international consultants, which pride themselves on selling "business solutions" rather than narrow technical advice or equipment.

"Computing is still perceived in Russia as a technical speciality," says Alexander Gorbunov, a manager with Andersen. "And one that companies believe can be done in-house. Computing was seen as a technical department, like plumbing or construction. It is difficult to gain respect, and to raise the status of information technology to something that is considered by the chief executive."

The consequence has also been a problem for those Russian clients seeking value for money. Mr Gorbunov says that with grants from international organisations, they would often buy a computer which "would be sitting there for two years doing nothing while staff worked out what to do with it".



The same applied to software. He argues that companies would buy locally-produced packages – as well as foreign ones which were often ill-adapted to the local market – without any external advice. The result was that "programs were sold and just sat on the shelves", he says. "People could not do anything with them."

There are exceptions. SAP, the German-based company, has built a considerable Russian presence, and has adapted its business software not only to handle the cyrillic alphabet and the language, but also to deal with the country's specific accounting, tax and other regulatory requirements.

Analysts estimate that a high level of software used in Russian businesses is pirated

Mr Farish remains sceptical about the priority given by many businesses to sophisticated packages, however. "Most Russian companies spend a lot of time avoiding paying taxes," he says. "They are not going to spend time making things transparent for when the tax police come to visit."

There are also considerable problems with copyright. The Business Software Alliance estimates that 95 per cent of Russian software is pirated – even if its statistics are skewed towards personal computer use, and the proportion is lower for corporate software.

But if foreign businesses involved in the Russian market have suffered, so too have domestic suppliers. Another peculiarity of the country is that the big names have never held a very large share of PC sales: just 175,000 of the nearly one million units last year were international brands. A further 50,000 were non-branded imports, but the bulk of sales were locally-assembled PCs.

Given the modest skills required, as well as the huge distances, high capital requirements and the difficulties with customs clearance, local assembly is highly attractive.

Mr Farish estimates that about 2,000 such companies now exist. But even the market leaders – such as VIST, R&K and CLR – have been hard hit by the crisis.

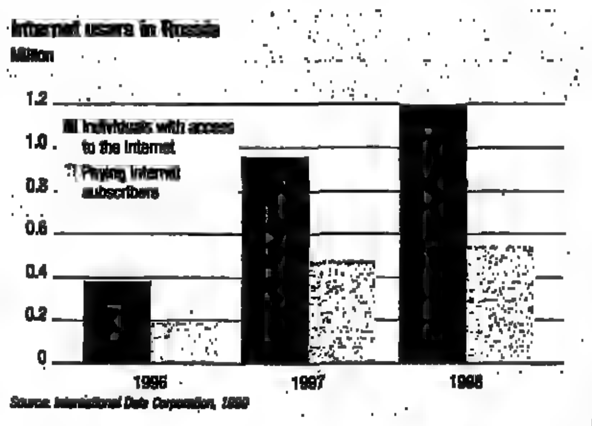
There is room for some optimism. Russian software providers are developing fast, and have established a world-class reputation in some sectors which were often Soviet research strengths in the past: encryption, machine translation, optical character recognition and anti-virus programs, for example.

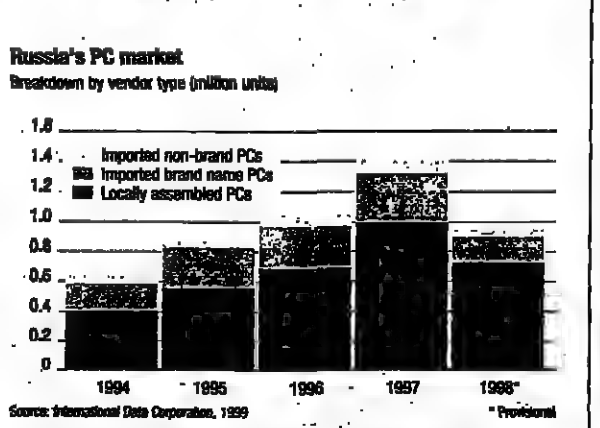
One-off niches also offer considerable potential, such as preparations for the millennium and ensuring that computer systems are Y2K-compliant.

"Our impression is that Russia is way behind on the curve," says one international consultant who has worked on the subject.

And in the longer-term, the Internet and electronic commerce have triggered huge interest. Even if the rate of growth has dipped, the trend is still upwards: IDC figures show 545,093 paying Internet subscribers in 1998, compared with just 191,427 in 1996. The research group estimates that 1.2m Russians have access to the Internet.

There is even a glimmer of hope from its latest statistics on PC shipments: they rose again in the fourth quarter of 1998 to 224,279. The market may be down, but it is certainly not out.





PC sales in Russia declined from 456,000 in the last quarter of 1997 to 141,000 units in the third quarter of last year, but rose to 224,279 in the last quarter of 1998.

Home theatre headgear: in New York, Sony executives Dan Nicholson, left, and Federico Stubbe try out Sony's Glasstron, the portable 10-ounce headset that replicates the experience of viewing a 52-inch TV at 6.5 ft. The Glasstron connects to any analogue or digital source AP

Online message heralds broadcasting shake-up

As digital technology shrinks the world further, Marshall McLuhan's striking ideas of three decades ago are gaining a new relevance, writes **Paul Taylor**

The emergence of the Internet as a universal broadcast medium and the web as a vast online information resource has been described as the most profound communications event since the introduction of the telephone a century ago.

It would certainly have fascinated Marshall McLuhan, the Canadian mass media visionary whose most famous quote – from his book *Understanding Media: The Extensions of Man*, published in 1964 – is probably: "The medium is the message".

For him, the perception of information was a function of the medium by which it was received. Thus radio was a "hot medium" because it required the listener to convert its messages from verbal to mental imagery, while television was a "cool medium" because the same messages viewed on a TV screen provided a largely passive experience. By these measures, the Internet and the web are probably both hot and cold.

Certainly, as Lewis Lapham noted in the introduction to a reissued version of the book marking the 30th anniversary of its original publication, "MTV, the Internet, e-mail and home-shopping have acquired a relevance that is best understood as being McLuhanesque".

But there are opposing views. For example Tom Koch, in his recently published book, *The Message is the Medium*, argues that what drives online expansion is its content and the ability to send messages to specific people. He contends that popular acceptance of these technologies is driven not by the medium's attraction, but by the quality and content of data it allows users to send and receive.

All three men would probably agree, however, that the changes under way in the media business today are no less profound than those ushered in by Johannes Gutenberg, father of the printing press, more than 500 years ago.

The main driving force behind these changes is the adoption of digital technology as the basis for the creation, manipulation, distribution and storage of "intellectual property" in any of its guises. This means that any form of information, whether text, data, still images, audio or video, can be easily recorded, compressed, transmitted and reconstituted with little or no loss of quality and often at a fraction of the cost of traditional "analogue" systems.

FT IT

New media

Here and on the following seven pages, FT writers examine the impact of IT in the media world

The dawn of the "information age" based upon standard Internet technologies such as TCP/IP and HTML has raised a number of important issues for traditional publishers, broadcasters and information services. In particular, it has already led to increased competition, accelerated the move towards globalisation and fostered the development of new multimedia-based, interactive information and entertainment services – many of which are unencumbered by physical distribution networks and high overheads.

The new business challenges and opportunities are reflected in the growing number of alliances, partnerships and mergers in the IT, communications and entertainment industries. Elsewhere, convergence is creating powerful new business opportunities and challenges.

For example, Internet telephony and e-mail are challenging traditional telecoms business models, while web television and "push" technologies are forcing broadcasters and information suppliers to reassess their strategies and embrace new technologies such as digital broadcasting, cable modems and digital versatile disk (DVD) which all promise a revolution in delivery channels.

In other sectors such as publishing, the emergence of online booksellers like Amazon.com has forced traditional book retailers to re-examine their business models and rush to set up their own Internet bookstores – even though, at least for the moment, the fulfilment of online orders still involves the physical distribution of books.

Some traditional publishers have invested heavily in new media, particularly CD-Roms and online services, and have experienced mixed success. Other publishers have held back because of inertia and fears about cannibalisation, leaving open the possibility that new entrants, including content "aggregators" and portals, will hijack their markets.

So far, however, although electronic news and information services – particularly those based on open Internet standards – have shown dramatic growth in recent years, they have not eaten into the circulation of the established print media. In fact, electronic publishing has actually broadened the reach of traditional print media and supplemented rather than replaced existing titles.

Nevertheless, as the battle for advertisers heats up and e-commerce attracts more and more online consumers, the economics of traditional print distribution could change dramatically. Forrester Research estimates that the global online advertising market will grow to $5bn by 2003 and lead to "the emergence of global media companies as the growing international ad market, intense competition, the need to diversify and the Internet's economies of scale drive media consolidation".

In other media areas,too, changes are under way. For example, most studies suggest that as household PC and Internet penetration grows, the number of hours spent watching TV are beginning to decline. In order to win this "battle for the eyeballs", broadcasters are increasingly looking to digital interactive services to enhance the TV experience and hold onto their audiences.

Digital TV, though essentially a new method of TV transmission, has become the buzzword for a revolution, said consultants Booz

Turn to next page

BROADCASTING

New channels of delivery

From previous page

Allen Hamilton in a newsletter last year. With its potential for narrowcasting, individualised viewing and full interactivity, it represents an opportunity to push TV into the online world, as well as hasten the development of multimedia into a mass-market medium.

For broadcasters, Britain has emerged as a digital TV test-bed, with digital satellite already competing directly with digital terrestrial services and digital cable due to be launched later this year – all are planning to offer interactive shopping, banking and other services including Internet access. Other European countries are following quickly.

"Innovative players, common standards (digital video broadcast) and government support helped Europe make an early start in digital TV," noted Forrester Research in a recent report. "More than half of the French, British and Swedish TV households will go digital by 2005." Forrester predicts that vertically integrated platform operators like Canal Plus and BskyB, which own both content and subscribers, will benefit most in the new more competitive market."

Elsewhere, in the music industry, for example, the development of high quality digital file formats like MP3 has begun to challenge the grip exercised by traditional music publishers and distributors over musicians who now see the opportunity to sell their wares directly to end users.

"With grassroots support rocketing, MP3 looks set to become the next great music opportunity, with or without the support of the vast majority of 'old guard' intellectual property owners," noted IMRG (Interactive Media in Retail Group), the European industry research and pressure group, in a recent briefing note.

"Bandwidth is increasing, data storage costs are plummeting, and audio streaming is maturing," said IMRG. In an industry rallying call, the note concluded: "There is nothing easy about the revolution going on in music distribution. All traditional commercial connections are rapidly reviewing their purpose in life and are seriously contemplating the defence of the bottom line. MP3 is heralding the first great consumer conversion to the networked economy – watch out, your market is next."

Indeed, with music, computer software and other forms of copyright material, the Internet can pose a considerable threat because it can facilitate piracy. According to the Business Software Association, piracy on the Internet is now the fastest growing problem. Similarly, there is little doubt that copyright material, including digital images, is often downloaded illegally from the Internet.

New media's delivery channels today include "offline" stored distribution mechanisms, such as CD-Roms and their derivatives including DVD, and online "real-time" wired and wireless networks such as the Internet and digital broadcast technologies including cable, terrestrial and satellite systems.

While bandwidth is constrained, it seems inevitable that stored new media will play an important role in new media distribution. However, this could change. John Griffin, former head of new media at Geffen Records who now runs OneHouse, a Los Angeles-based consulting group, argues that the only time consumers store things is when they are insecure about their ability to get them just-in-time.

According to Mr Griffin, "the future is not so much about a change in distribution, but the atrophy of distribution and the arrival of just-in-time delivery of mass customised bits". If he is right, IMRG notes, "industry's copyright problems now will look like chicken feed compared with the problems they face in coming years".

INTERACTIVE TV by Tom Foremski

Busier life ahead for couch potatoes

New digital technology is putting more choice in the hands of traditional TV audiences who will increasingly be able to decide their own programme schedules

Since regular television viewers are often thought of as "couch potatoes", the idea of interactive television might seem rather a contradiction in terms. Yet many people are already interacting with their TVs.

People surf dozens of TV channels several times during the course of their viewing; TV shopping channels sell huge volumes of products to viewers willing to pick up a phone and place orders; and online chat sites involve thousands of viewers sharing comments while they view TV programmes.

Yet truly interactive TV has yet to arrive. Early experiments such as Time Warner's Full Service Network in the early 1990s failed to provide a decent business model. And early interactive TV project failures have to some extent, tainted the term itself, so that companies now tend to use terms such as "enhanced TV".

But with the rise of the Internet, and the continuing convergence between PCs and TV platforms, interactive TV has a new lease of life. Those promoting the concept now face two key issues: working out how to establish the underlying industry standards and assessing the degree to which viewers will want to interact with TV programmes. At its simplest level, an interactive TV could be defined as a TV with a set-top box on a digital two-way cable or satellite system, or even using a built-in modem, that offers Internet features such as web browsing and e-mail.

This is already available in products such as Microsoft's WebTV and other set-top boxes, with more on the way. But there is a also a more integrated, full-featured interactive TV ideal, combining TV viewing with e-commerce features linked to commercials, user-defined programming of content, and access to online content related to specific TV programmes.

With the Internet as a global network to link interactive TV viewers, the communications medium is in place, ready to be used. To pave the road ahead to full interactive TV requires broadly accepted standards in communications and hardware platforms to deliver interactive TV to the largest possible number of TV viewers.

Planning interactive TV content will require many trial efforts to find the best mix of user interface and features. But without the neccessary underlying communications and hardware standards, interactive TV developers must contend with a fragmented market.

United effort

The largest industry effort to develop interactive TV standards was launched last summer. CableLabs, CNN, DirecTV, Discovery, Disney, Intel, Microsoft, NBC, NDTC Technology, NCI, PBS, Sony, Thomson, Tribune and Warner Bros and others, founded the Advanced Television Enhancement Forum (ATVEF).

This combination of computer companies and broadcasters is advocating interactive TV standards based on internet standards and using TVs with PC-like features.

ATVEF's goal is to create industry standards that enable interactive TV content to be delivered over any communications medium, such as analogue, digital, cable or satellite, to all types of broadcast receivers that comply with base specifications. It is a laudable goal and designed to avoid the standards battles that typically hamper market growth – but not all is going to plan.

Manufacturers of TVs do not like the PC-centric approach of ATVEF, which is why ATVEF membership lacks many major TV manufacturers. While Sony is a supporter of ATVEF, Thomson, was brought in only after Microsoft made a 7.5 per cent equity investment in Thomson Multimedia and promised to co-develop "enhanced" TVs.

The reluctance of TV manufacturers to embrace a PC model for interactive TV is a defensive move as PCs increasingly challenge TV sales. It is a struggle over who will control the eventual convergence of the PC/TV platform. The Advanced Television Systems Committee (ATSC) group, whose membership includes most major TV manufacturers, has not endorsed the ATVEF proposal and is debating different interactive TV standards.

For TV manufacturers, the stakes are high. Giving in to the PC-centric standards model means essentially turning the TV into a PC and inviting competition from many PC manufacturers. But if TV manufacturers can hold onto their prime position, in the centre of the family living room, the future holds many more opportunities.

The TV could become the entertainment and communications hub of a home network that connects other TVs and PCs to outside communications and entertainment services, including interactive TV. Japanese TV manufacturers, for example, have already demonstrated TV models that include large hard drives and memory that can store digital TV content and act as home-based servers connecting other entertainment devices.

This gulf between the two main camps – the supporters of the PC-centric model and the TV manufacturers – does not bode well for the future of interactive TV. "Despite the exponential penetration of the PC and the long predicted convergence of the PC and TV, it is clear that there will continue to be clear blue water between the two," notes Roger Rendle, a consultant with PA Consulting Group in a recent paper.

But TV manufacturers will be hard pressed to stop the momentum of PC-based technologies into the TV. This is best expressed by the growing market for set-top TV boxes and the development of powerful boxes that can convert TVs into interactive TVs, with or without the blessing of TV makers.

National Semiconductor, for example, is developing a PC-on-a-chip with its MediaPC chip due this summer. National hopes to sell MediaPC for as little as $50, effectively allowing manufacturers to embed a PC system in a wide range of applications.

"We are seeing a lot of interest in MediaPC for use in digital set top TV boxes, especially in Europe," says Brian Halla, chief executive of National Semiconductor. "We can also customise the MediaPC for specific applications."

DIGITAL RADIO by Cathy Newman

Tune in for CD quality sound

New technology will be a boon for those wanting nothing but the very best in radio sound, although the cost is still high

Walk into any big UK electronics retailer and you cannot fail to notice the digital television receivers. The same cannot be said for digital radio.

Where television has very publicly gone digital, most people are probably unaware that the same revolution awaits radio. Later this year, the first commercial digital radio service is being launched in the UK, one of the most advanced countries in this area.

But what exactly will the new technology bring to the wireless? The most obvious improvement over traditional analogue radio will be CD-quality sound. Digital will eliminate crackles and hisses which currently plague radio listeners, particularly those who tune in while in cars.

Because digital enables many more frequencies to be squeezed in, the new technology will see a big increase in the number of radio stations. There are about 230 national and local stations in Britain at the moment. That figure could more than double once digital arrives.

Radio operators say the other notable benefit will be the introduction of data services on digital. Data on travel, news or share prices can be viewed on a five-inch colour screen built into the digital radio sets.

But it is hard to believe these changes are under way, since the hardware needed to receive the new services is not widely available. Although digital car radios went on sale last year, sets for the home are not expected to reach the shops until later in the spring.

Nevertheless, some radio companies' plans are advanced. Digital One, a consortium led by GWR Group, owner of Classic FM, won the only national commercial multiplex – or bundle of frequencies – to broadcast digital radio. It will be launched in October, and will offer digital versions of the three existing national stations – Virgin Radio, Talk Radio and Classic FM – and five other services broadcast across the UK. These will range from rock channels to news and sport.

Meanwhile, the BBC has invested £10m in a digital radio network which is now broadcasting to 60 per cent of Britain's population, even if only a handful of people have the equipment to hear the new services.

The BBC is broadcasting Radio 1, 2, 3, 4 and 5 in digital format. There are additional channels, including extra sports commentary and coverage of House of Commons debates. The BBC is also exploring the possibility of piloting a travel data service and a music archives channel.

Plans for launching local commercial radio into the digital age are more embryonic. Bids for the first licences to broadcast local digital radio are only invited later this year, although several groups have already expressed an interest in applying.

Glyn Jones, managing editor and project director of BBC Digital Radio, is enthusiastic about the new technology's prospects. But he admits: "The only barrier the retailers are reporting is the price."

Although the cost of the equipment is expected to come down, a car radio currently costs £500, while standalone digital radios for the home are priced at £700. Unlike digital television, broadcasters have ruled out, at this stage, subsidising the sets to persuade customers to buy. That is one reason why it is easier to list selling points for digital television than for radio.

Another problem is that, from October, only 70 per cent of Britain will be able to receive Digital One's services, although that audi-

Turn to page 19

DIGITAL TV AND THE PC by George Black

Vision of converging worlds

The next generation of digital TVs will allow viewers to become much more interactive, but PCs will still be the favoured choice for some non-entertainment uses

The convergence of personal computers and digital televisions has long been forecast, but how, when and to what extent this will happen remain unclear.

The next generation of digital televisions will undoubtedly have much more interactive capability and make them much more like personal computers, particularly in their ability to host the Internet.

But that does not necessarily mean that the two technologies will converge completely. Some functions, such as home shopping and home banking, may be carried out more on televisions and less on PCs, but even that is not yet certain.

The main impact of digital TV on the information technology industry is expected to be a huge expansion of the number of Internet users, especially casual users.

As television is much more pervasive than are PCs, and will be much easier to use even when it is more interactive, many more people will become – at least to a limited extent – familiar with digital technology. PCs are owned, as a rule, by only about a quarter of households in Europe, whereas televisions are owned by more than 90 per cent.

Digital TV, therefore, could bring the breakthrough that has long been sought to turn computer technology into a mass market. So far, all the efforts to make PCs easier to use through the refinement of Microsoft Windows and other common user interfaces have largely failed to spread the technology to the majority of the population.

However, the looked-for revolution supposes first that digital TV will quickly be a big success and, second, that it will provide a direct replacement for the PC. Neither of these assumptions is unquestionable.

Media analysts suggest that the take-up rate of digital TV is very uncertain and the early offerings may be too complex for the potential market.

"The relatively well-off people who might subscribe to these new services may be too busy to pay a lot of money for dozens or hundreds of channels, most of which they will probably never watch," says Miriam Mulcahy, a principal consultant at PwC, the international consultancy.

She thinks that pay-per-view television, a system which may become available through a set-top box or a satellite TV terminal using smart cards, stands a much better chance of success than the present multi-channel bundles. This type of service is being pioneered in Hong Kong, but it could be several years before it spreads to many other countries.

Even when digital TV becomes widely used, interactive applications will not necessarily be equally common. According to a report last year by Ovum, the UK-based technology consultancy, the deployment of new interactive applications will, for the next three years, be "limited by network technology to islands".

The main restricting factor, it says, is the amount of network capacity needed for particular applications. Internet browsing needs much more bandwidth from the network to the user than vice-versa, but video-conferencing requires equal bandwidth in both directions.

Also important is the cultural difference between TV and computers. Watching television is very often a group activity, while the PC user generally works alone, and it is not easy to see how the two could be combined.

Adam Daum, a principal consultant at Inteco, the technology analysts, does not expect there will ever be convergence of TVs and PCs in the mass market for that reason. "There may be convergence in niche markets – for example, students in bedsits may want a single device – but not across the market as a whole," he says.

Surfing the Internet may well become technically satisfactory on a high-definition TV with fast cable access, but it will not fit well with the way people like to watch TV, in his view.

"People will, therefore, probably use the Internet on television only for uses connected with the programmes they are watching, for instance to check sports statistics or to buy tickets for future events."

John Moroney, a principal consultant at Ovum, thinks that entertainment applications will mainly migrate to the digital TV, leaving the PC as a platform for business.

Some home banking and shopping functions, such as a quick check of the bank balance or an impulse buy of an item of clothing, may be carried out on the television, on which only a few buttons are needed. Home shopping is a natural adjunct of advertising, which is likely to remain largely on television, forecasts Mr Moroney.

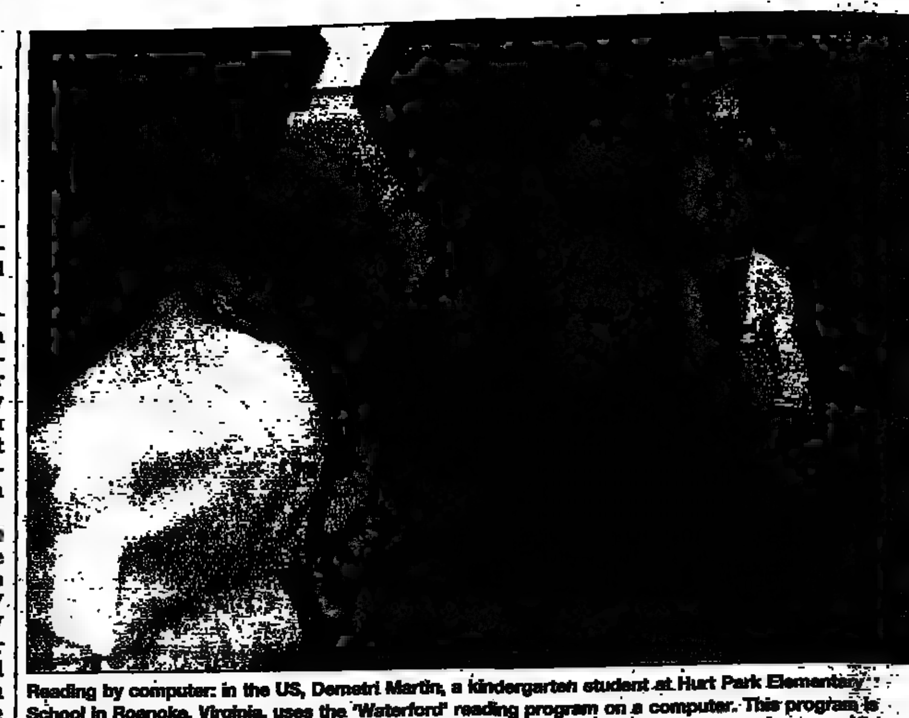
But more complex transactions, such as managing bank accounts, for example, or ordering such items as groceries from shopping lists, which could require a spreadsheet, are likely to be reserved for the PC, where the user can concentrate more easily and work more flexibly.

An uncertain factor is the impact of WebTV, the US company owned by Microsoft which adapts Internet material for television. Microsoft has been testing WebTV in the UK with the British Broadcasting Corporation, Carlton Communications, Granada Media and BT.

It is a safe bet that Microsoft wants to become a major player in digital television, but it is unclear whether the company intends WebTV to become a world standard or whether it will instead promote its Windows CE operating system for use on TV set-top boxes.

What is clear is that there are still several software standards, including Web TV, Windows CE, Open TV and Network Computer's TV Navigator, competing for dominance in this area and that the conflict between them is likely to hold up the move to technical convergence.

"If software needs to be rewritten for different devices, it undermines the idea of a seamless transition from PC to TV," says Inteco's Adam Daum.



Reading by computer: in the US, Demetri Martin, a kindergarten student at Hurt Park Elementary School in Roanoke, Virginia, uses the 'Waterford' reading program on a computer. This program is designed to kindle a love of books and reading in children at an early age AP

WEB INTERFACES by Mark Vernon

Consumer choice is still limited in the digital market

Net users expect user-friendly web pages AP

When Eagle Star Direct first thought about a web site, it came up with an idea that would have revolutionised the online insurance marketplace. The UK insurer realised that what customers wanted from the web was a one-stop shop for competitive quotes that required filling in only a single form – offering, in effect, all the simplicity of an insurance portal.

However, the implications of working in a single interface, virtual marketplace proved to be too much for industry collaboration, so Eagle Star went it alone. However, the idea is one whose time will inevitably come – perhaps more quickly than one might think.

For the virtual marketplace is one of the hottest areas of research in the electronic business explosion. Businesses are clearly being persuaded of the advantages that Internet-based technologies can bring. They are launching intranets to push information out across their enterprises. Extranets are being set up to automate the supply chain and sales processes.

To date, though, this activity has largely involved the migration of existing business processes to the web, making cost savings and improving efficiency as a result. But this does not substantially alter the way business is done. It merely makes traditional practices more efficient.

A more radical approach revealed the "glass ceiling" that Eagle Star threatened to break. In suggesting to its industry peers the construction of a single virtual marketplace, a welter of prejudices surfaced. How would brands compete on the single screen? How might product differentials other than price be presented attractively to customers, such as before- and after-sales service.

How could companies that have invested so much in competitive advantage work partly alongside those they regard as competitors? The emerging e-commerce industry is beginning to wake up to these problems, though largely by default since companies mostly go online because they feel they have to.

Yet once there, the substantive issues that e-commerce raises come to the fore. Companies that are new to virtual marketplaces will realise – however alert they are – that going online is only the start of a process of increasingly dramatic change.

To this end, a number of rapid deployment web site tools are coming to market. One recent launch was NetObjects Fusion 4.0. "Business customers have been very vocal about their frustration with the lack of an integrated, cost-effective and productive solution for creating e-business web sites," says Bernard Desarnauts, vice president of product management and marketing at US-based NetObjects.

He stresses that customers are looking for tools that enable web sites to be built quickly but with enough functionality to develop support for more complex online experiments too. One adventurous experiment is to be found at *www.shopping centre.net*, a British collaboration between opticians Dollond & Aitchison, the Hornby and Scalextric toy companies, Polygram entertainment, the Dillons book chain and several major magazines to provide an interactive shopping experience that tackles some of the Eagle Star-type problems.

The idea is to personalise online shopping, making up for the loss of elements pres-

Turn to next page

DIGITAL TV by Christopher Price

Sending the right signals to attract a wider following

Technological advances indicate that there is a wider take-up of this latest ultra-high-tech service

Although digital television has been launched in the US and most European countries over the past five years, it has only been during the last 12 months that technological advances have begun to suggest a widespread take-up of the new service.

The digital signal used in transmission is much more efficient than traditional analogue signals, allowing 10 times as many channels to be compressed into the same space.

This not only gives greater choice of channels, but also a better broadcast quality, with the capacity for supplying interactive services, such as video-on-demand and home shopping and banking.

Although digital television has been available in the US for five years, and in most of Europe in the past 18 months, it has only been available via satellite and cable delivery. This has limited its distribution and appeal.

However, that is all set to change. In November, the UK became the first country to launch a digital terrestrial television service, giving access to any television viewer via a set-top box to decode the digital signal. Others are following, greatly enhancing the prospects for this medium to replace traditional analogue broadcasts over the next decade.

The UK government has said that analogue broadcasts must cease, probably some time in the next ten years. On the other side of the Atlantic, the authorities in the US, the first big consumer market to experience digital television, have ruled that digital broadcasting must be available from each of the four big networks in the top 10 markets by May this year.

This would cover around a third of US households. Currently, digital television attracts some 4m subscribers to the DirecTV satellite digital service. Smaller markets will need to be online with digital television by November, with all remaining commercial stations converted by 2002.

The US is keen to promote high-definition television (HDTV), a type of digital television. However, there has been much debate in the US over whether HDTV has a future. A recent report by Forrester Research concluded that HDTV was too expensive, and that standard definition digital television (SDTV) would be the popular affordable choice.

For example, Forrester says the cost of HDTV sets will remain above $2,000 for the next 10 years, whereas SDTV sets are likely to fall to below $1,000 by 2002. It also forecasts that SDTV will have a market share of 80 per cent by 2008.

In the meantime, developments in the UK market, with its unique three tiers of satellite, cable and terrestrial digital, will be watched closely by industry observers.

Rupert Murdoch's BSkyB launched its satellite digital service in September 1998. Skydigital offers 50 channels, which are a mixture of existing free terrestrial channels, pay channels and pay-per-view services.

The combination of being first into the market and a huge advertising campaign has boosted its appeal: about 200,000 subscribers are thought to have signed up by the end of 1998. BSkyB is unique in being both a channel and programme supplier and broadcaster.

Thus, of its 6.3m subscribers in Britain, just over half receive their service via satellite. The remainder receive their programmes from cable.

On Digital, a joint venture between the UK television groups Carlton Communications and Granada, made its debut in November. It offers 22 channels, five of which are classed as "premium". The bulk of these are supplied by BSkyB and include exclusive films and sport content.

The key selling point for On Digital is that viewers do not have to buy a satellite system, or connect to cable. Instead, they buy a set-top box, which sits between their aerial and television set. Skydigital, not surprisingly, makes much of its greater number of channels.

Tailored packages of channels to appeal to different sections of TV viewers are set to become the norm

This year should see the launch of the cable industry's digital television offering in the UK. Cable offers superior bandwidth over the other two media, which should offer an advantage in the provision of interactive services.

"Once digital cable is established," says a new report from ABN Amro, the Dutch bank, "customers will be able to offer an integrated package of telephony, multi-channel TV, pay-per-view, interactivity and high speed Internet access. This should help offset some of the competitive disadvantage of being the last into the UK market with digital services."

ABN Amro believes there will be a number of factors which will drive the growth of digital television in the UK. Among these is the increase in channels. While satellite and cable have provided a wide selection for a number of years, the broadcasters, both old and new, have discovered the value of marketing.

Thus the UK cable industry, which has languished for years, has been transformed, partly by consolidation, but also because the operators have recognised that customers need to be attracted to the service by accessible price points.

Tailored packages of channels to appeal to different sections of viewers are set to become the norm in the digital television market. Second, a culture of pay television already exists, due mainly to the efforts of BSkyB. This will cause an increase in the competition for attractive content, such as sports events and films – as will the number of pay-per-view opportunities.

Third, interactive services will provide a small but increasingly important source of revenues. This will become more apparent with the launch of services such as British Interactive Broadcasting, now called Open, which will offer home shopping and banking.

ABN Amro believes that these factors will help underpin digital television's take-up over the next 10 years. Pay television penetration, for example, is forecast to double to just over 50 per cent by 2009. This is expected to break down as roughly 20 per cent each for cable and satellite and just over 10 per cent for On Digital. Pay television revenue is forecast to rise from £1.7bn today to £4.6bn in the same period.

More than 4.3m digital TV subscribers in Europe

Operator	Distribution medium	Digital subscribers ('000)	Digital penetration (%)	Digital launch date	Digital terrestrial availability
CanalSatellite	DTH	1100	8.0	Apr 96	
TPS	DTH	615	2.5	Dec 96	
AB1	DTH	150	0.7	Dec 96	
Lyonnaise Cable	Cable	100	0.5	Jan 97	
NC Numericable	Cable	57	0.3	Jan 97	
Total France		2022	9.2		From 2000
Canal Plus Espana	DTH	575	4.5	Jan 97	
Via Digital	DTH	350	2.8	Sep 97	
Total Spain		925	7.3		From 1999
Telepiu	DTH/cable	312	1.4	Sep 96	
Stream	Cable/DTH	70	0.3	Oct 98	
Total Italy		382	1.7		From 2002
DF1	DTH	230	0.6	Jul 96	
Premiere	DTH/cable	200	0.5		
Total Germany		430	1.1		From 2002
Canal Plus Digital Nederland	DTH	234	3.5		
Total Netherlands		234	3.5		From 2000
BSkyB	DTH	200	0.8	Sep 98	
ONdigital	DTT	20	0.1	Nov 98	
Total UK		220	0.9		From Nov 98
Telia (Sweden)	Cable	20	0.5	Nov 97	
Tele Danmark	Cable	35	1.5	Feb 98	
Canal Digital (pan-Scandinavia)	DTH	50	0.5	Aug 98	
Total Scandinavia		105	1.0		From 1999/2000
@ Entertainment	DTH	51	0.5		
Total Poland		51	0.5		
Total		4370	3.2		

Source: ABN AMRO

VIEWPOINT: JANE OSTLER ON ADVERTISING ON THE WEB

Flying corporate banners for the Internet audience

An advertising and marketing expert gives her own perspective on the rapidly expanding potential of the Internet, writes **Rod Newing**

Banner advertisements on a web site are not there just to be clicked on. They act like posters at the side of a road to display brand messages, so that even if visitors do not click on them, the advertiser is getting value. This is the way Jane Ostler, managing partner of MindShare Digital, views one aspect of the Internet.

Her company is the new media arm of MindShare, one of the largest media planning and buying companies in the world, which is owned by WPP, the world's largest marketing and communications company.

Ms Ostler explains that due to the explosion in the number of radio and television stations and specialist magazines, it is becoming more and more difficult for advertisers to reach audiences in a cost effective way using traditional media. Price wars in the newspaper market mean that people are no longer loyal lifetime readers. The arrival of digital television will fragment the market further.

"Digital television will offer access to the web, so the way people look at the Internet will change because it is a different proposition than if it is on a computer," predicts Ms Ostler. "However, the great thing about the Internet is that it is a very trackable and accountable medium. Any advertiser or business setting up a web site can tell how many different people have been into the site, how often they come and which pages they have looked at.

"Likewise, the interactive element of digital television will also be trackable."

All this is not possible with conventional advertising, which depends on viewing panels and other types of qualitative and quantitative research. The problem for organisations is to attract people to their web site, when there are so many other sites competing for people's time.

Many companies carry the web address on their packaging and TV, print and poster advertising. Ms Ostler points out that it is often not their home page, but the page within the site that deals with that particular product, service or issue.

A more immediate way is to advertise within other web sites. "People are already on the Internet and they are just one click away from your site," says Ms Ostler. "Web advertising started in 1994 and has been growing at 300 per cent per year, faster than any other medium in history. It has developed into a fully fledged commercial medium where you can buy thousands or millions of impressions of a banner."

A banner is a rectangular advertisement space on the web site and an impression is the number of times it is seen – by a few people frequently or by many people less often. A banner is often animated in some way and if visitors are interested, they click on it, which takes them to the relevant page on the advertiser's web site.

Sponsorship is also a fast growing area. "If a company is sponsoring a major sports event and is advertising on television, it makes total sense for them to be present on both the event and the station web sites," says Ms Ostler.

"We are beginning to see more integrated marketing programmes that work across all media, including the Internet." The traditional method of measuring advertising effectiveness is click-through, which is the proportion of people who click on the banner.

Research

"Click-through rates are dropping very quickly because there are more people advertising, so fewer people click on individual banners," explains Ms Ostler. Research by US-based Millward Brown Interactive, shows that even if 99 per cent of the people who see a banner do not click on it, "you can still build awareness and perception of the brand."

As more sites start to develop electronic commerce applications, it is possible to track the path directly from the advertisement through to the sale; this cannot be done in any other medium. "You can start to see whether you are getting good cost per lead or cost per customer acquisition, so you know how much each sale has cost in terms of advertising," says Ms Ostler.

Data gathered from loyalty schemes or web sites and stored in databases is becoming a very valuable and powerful corporate asset. "It allows you to understand your existing and potential customers and speak to them in different ways," she adds. "Delivering customised and personalised messages is much easier on the Internet than it is by other media, including direct mail, because the process can be automated and database driven."


Jane Ostler: 'The Internet demands immediacy'

MindShare has done some research which shows that brands which people know and trust are the ones that will be most successful in these new digital environments. However, that also brings with it a customer service burden, because consumers expect a lot more out of digital media.

"The Internet demands immediacy because it is real-time," points out Ms Ostler. "People will wait a week for a reply to a letter, but they require an almost immediate response to an e-mail.

"This means that the way brand holders present themselves, their products and services has to be thought about at both a strategic business and a marketing level," she adds.

"Digital media is developing so fast that nobody can predict what will happen," says Ms Ostler. "There was a discussion three years ago about whether the Internet was a case of hype over reality. The reality is now catching up with the hype, but I don't think we have seen the half of it yet!"

DATA STORAGE by Philip Manchester

Technology struggles to match surging demand

As all forms of data are increasingly transmitted in digital form, the IT industry is under enormous pressure to see that storage capacity keeps pace

The ability to store and retrieve data in digital form was one of the fundamental breakthroughs that made computing possible. Indeed, innovations in devices to store digital data have often dictated the pace of change as much as the power of processors.

The miniature Winchester disk technology of the early 1980s did as much to popularise the first generation of PCs as Intel's chip designs. The more recent innovations in high-resolution graphics owed as much to the development of large capacity optical storage devices like CD-Rom as it did to clever software and graphics processor chips.

Data storage has always been a problem for computer users – mainly because there is never enough of it. Many commentators have, for example, attributed the year 2000 date problem to the pressures on programmers in the 1970s to economise on storage.

One thing is clear: data storage requirements keep growing – and technologists are constantly fighting to meet the demand. In a curious parallel with Moore's Law of increasing processor chip power, storage density has increased by around 100 per cent every 18 months since 1991.

The convergence of multimedia and digital computing puts even greater pressure on storage technology. Audio and video consume storage at an alarming rate. An uncompressed stereophonic audio file requires about 10 megabytes per minute, for example, and video needs far more. The new generation of DVD disks with a capacity of over 40 gigabytes - eight times that of a CD-Rom - can hold just over two hours of compressed video.

Storage hardware technology is just about keeping pace with demand. Innovations such as Redundant Arrays of Independent Disks (RAID) and optical storage devices like DVD provide the high-capacity required in multimedia applications. But it is not simply a case of capacity. To be of any use, multimedia data must be accessible - and it must be indexed and backed up.

Storage hardware suppliers are, therefore, producing self-contained storage subsystems that are substantial computer systems in their own right. Hierarchical storage systems – which store data on different levels of device according to how often it is used – are finding a growing market. Similarly, Storage Area Networks (SANs) are increasingly being used to service large numbers of desktop PC users.

> **The BBC plans to transfer 600,000 hours of video on tapes from shelves to new digital archives**

"The storage area network makes it possible for everyone to access everything and it makes it so much easier to manage because it is all in one place," says Nick Dagg, enterprise storage marketing manager at Hewlett Packard.

"It makes storage a utility – like electricity. Users can get at what they want 24 hours a day, seven days a week." Mr Dagg says that organisations such as broadcaster MTV, which have large volumes of video tape archives, are moving towards a digital environment by digitising the video and storing it on large capacity devices. He also suggests that many organisations outside of the traditional media sector can also capitalise on multimedia storage technologies.

"Take voicemail. Currently my digital voicemail can only hold about 25 messages – and like many people, I would like to hold more. Similarly, areas like video-conferencing and e-mail archiving can all benefit from greater storage capacity."

Within the media sector, however, the demand is especially acute. Robert Huntley, a senior manager specialising in storage products at Sony Europe says media companies are moving quickly to digital storage formats. "We are seeing a lot of requests from traditional broadcasters for digital archive databases and this is bound to have an impact on storage and networks. They need good indexing and they need to hold high quality images for broadcast."

He says digital storage and network distribution is being used for an increasing amount of post-production work, such as adding special effects to movies, for example.

The British Broadcasting Corporation is currently working on a project to transfer its vast archive to digital format. "We are holding about 600,000 hours of video as tapes on shelves and we are just beginning to move it across to digital storage," says Francis Galliano, project director for the BBC digital archive. "We have been holding stills for the newsroom for a year now and we are trying out distribution of video to the desktop."

Although the first use of the video archive will be in the newsroom, his team has to build a system that will be useful for all of the BBC's staff. "We are aiming to have the pilot up by the end of this year and news will certainly be the first department to make use of it. But we have to be able to meet the demands of all of our users in the long term."

Hierarchical storage and RAID are both under test – although Mr Galliano points out that current systems are not yet reliable enough to be used for live broadcasts. "We are thinking about an intermediate 'playout' server connected to a robotic magnetic tape library. But the reality is still tapes on shelves for the time being."

Nick Ayre, a principal consultant from Cap Gemini, who has worked with the BBC on the project, says "the key to the pilot system is to get the cataloguing right . . .the catalogue is obviously the key to making the archive useful. The BBC needs to be able to get at things quickly – especially in a news context where you have these perishable things called stories. But the digital archive will have a much wider impact in the long term – it could lead programme makers into new ways of making programme."

It will also mean the demand for storage will continue to grow. Mr Galliano notes, for example, that the BBC will hold its video archive in uncompressed format to be sure of maintaining the highest quality for broadcast use.

It will not be long, therefore, before terabyte (10 to the 12th power or one thousand gigabytes) and petabyte (10 to the 15th power – a million gigabytes) databases are common. Indeed, Sony's Mr Huntley says the company has already set up a "Peta site" for post-production applications.

RADIO

Warning signals on the cost of digital technology

From page 17:

ence figure is expected to rise slowly.

The radio industry has been somewhat muted about the new technology because of worries that it will not prove a hit with consumers. There was only one bid for the national commercial multiplex won by Digital One. And some operators have openly expressed their reservations.

David Mansfield, chief executive of Capital Radio in London, although generally supportive of the move from analogue to digital, says: "I don't think the consumer benefits 'leap off the page'.

"Furthermore, digital is not going to bring any more money into the system because there aren't going to be any more listeners."

More worryingly, perhaps, although the total number of stations will increase with the advent of digital, some operators are concerned that in certain key areas of the country – London, for example – there will not be room to broadcast digital versions of all the existing analogue stations. In that instance, choice will actually decrease.

That scenario has annoyed commercial operators who point out that all the BBC's analogue radio stations will be broadcast in digital format. City of London analysts have also sounded warning signals about the cost to radio operators of launching the new services.

Henderson Crosthwaite, the stockbroker, estimates that running the commercial national multiplex services will cost about £25m a year.

Given that the commercial radio industry's annual profits are only about £70m, the venture looks expensive. But Ralph Bernard, chief executive of GWR, does not see it that way. At a recent conference organised by Guinness Mahon, the merchant bank, he said the UK government was "giving large tracts of spectrum real estate away at what amounts to knock-down prices".

In one sense, however, the radio industry in Britain cannot afford *not* to invest in digital because the government is expected eventually to switch off analogue radio frequencies. "Radio cannot remain on analogue on an island for ever," he says.

Furthermore, the government has given radio operators an incentive to invest in the new technology. Those who commit to a digital investment receive an eight-year extension of their analogue licences. A self-confessed "digital evangelist," Mr Bernard warns: "If you miss 'the digital radio bus', there isn't another one behind."

He must be hoping that his own Digital One bus will at least be on time.

FT IT

New number for fax-u-back service

The new number for the FT-IT fax-u-back information service is **08705-209-903.** To receive this service, please ensure your machine is in polling mode. (Callers outside the UK, dial exit code: +44 8705-209-903). In the event of problems, send a fax request to Rowena Carr-Allinson in London on 0171 873 3197 or e-mail: Rowena Carr-Allinson@FT.com

WEB INTERFACES

Search for user-friendly solutions

From facing page:

ent on the high street with tricks that only the virtual world can provide. This is provided by an intelligent data capture facility. A database compiles a personal profile of customers as they shop by storing details of their movements and buying decisions.

Eventually, manufacturers will be able to formulate a customised loyalty points scheme, as well as organise specifically targeted promotional campaigns. Gimmicks are present, too, in the shape of an animated shop assistant called Zip, which guides shoppers around the site and calls them by their name.

Visitors may or may not enjoy that part of the experience. However, these kinds of web site are only the start. The goal is to provide a technological framework within which companies can build an electronic market for more complex products and services, including the sort that Eagle Star had in mind. Reaching that level of virtuality is occupying some of the best minds in computer science.

"As far as the customer is concerned, the requirements of a virtual marketplace are really quite simple," says Simon Field, of IBM's research e-business solutions group. "Can the web interface mimic the dynamics of a chat in a shop? For example, can the kind of insurance cover I want be changed as I see the price implications?"

Yet while dealing with these kinds of variables is the essence of talking face-to-face, it rapidly becomes very complicated over the web. IBM has developed a prototype web interface that tries to extend the online catalogue model. This model has features listed against variations in cost and the use of colour coding so that, for example, a darker font means fewer features.

"We will complete the infrastructure for the insurance industry first of all, before widening its scope for other industries," comments Mr Field. "The trouble with trying to be all things to all sectors is that the solution becomes so vague as to not be able to exploit what is really possible on the web."

FT IT

Key reports on the web

Visit the FT web site, **www.FT.com** for up-to-the minute information, news and analysis. The main features of this month's FT-IT Review can also be found on the FT web site at: **www.FT.com/ftit/**

To do this, a substantially more complex two-way match-making process is needed, whereby customers can select the products they want as the web server introduces desirable product features that companies want to sell.

To achieve this, the IBM interface is based upon a series of interactive stages. At each stage, the customer inputs a little more information and the web application offers them a few more choices, if available, from a number of different brands in the virtual marketplace, that brings the customer closer to what they finally decide they want.

The system tackles other matters, too. For example, if relevant regulatory requirements are checked, customised advertising is displayed on the screen and information that has already been supplied is not asked for again.

Checks are also performed. For example, a 21 year-old man wanting car insurance for a high performance sports model might well be refused a quote.

Alternatively, a customer whose profile proves attractive to any one particular company will be offered special deals.

The IBM work is still in the laboratory, although potential users are excited by what they have seen. However, the challenge posed by Eagle Star largely remains – and the vendor who can successfully find a solution will have done much to advance electronic commerce.

CASE STUDY
BBC NEWS ONLINE

Broadcaster makes digital headlines

In a key experiment with the converging technologies of broadcasting, computing and telecoms, the BBC is gaining new experience on how to attract audiences through the Internet

It has all the hallmarks of a conventional newsroom: a busy, but fairly quiet, open-plan space where journalists beaver away at their workstations. But to Bob Eggington, it is either a research laboratory or the journalistic equivalent of the *Cresta bobsleigh run*.

"If you get to the bottom, you feel great," he says with a short laugh. As project director for BBC News Online, Mr Eggington is the man overseeing the British Broadcasting Corporation's belated but successful entry into news on the web. His job is to see how the BBC can transfer its huge skills in television and radio news production onto the Internet.

His quest is not only to create a new medium for the public service broadcaster. He must also find ways to expand the traditional news broadcasting skills of the BBC in readiness for the digital age when viewers and listeners will interact with their TV and radio sets much as they now can with their personal computers.

"I think interactive TV is going to be competitive in a very small number of years. Supportive, additional content available on screen is going to be part and parcel of competitive news coverage," he says. So, for the BBC, News Online *(news.bbc.co.uk)* is a key experiment with the converging technologies of broadcasting, computing and telecoms.

If it works, it will maintain the BBC's position as one of the world's most respected and comprehensive news providers offering a rich mixture of text, video and audio. But the former home news editor and managing editor of BBC political programmes tends to shun such grandiose claims as he discusses the 17 month-old News Online service.

When he chooses to be more graphic about the spills and thrills of working in an area of journalism which is still genuinely pioneering, Mr Eggington uses the theme park as his metaphor. "It's a white knuckle ride," he says of the whole new world of serious Internet journalism. "Everybody's afraid the machine is going to break while we are hanging upside down."

Yet, in its short history, BBC News Online, one of the corporation's three main Internet offerings, has already established a formidable reputation, winning several awards.

In January, the BBC's online services came out at number two in the first ever UK top 10 of Internet sites. Fletcher Research found that in one two-week period, 42 per cent of all viewers surveyed used the BBC sites. Only the much-marketed and longer-established Yahoo! did better. BBC News Online won the public sector category in the Financial Times/UUNET 1998 web site awards.

The service, developed with the help of the Internet consultancy Aztec, creates about 300 stories a day on clean and easily navigated pages. The service is prepared by a team of 80 dedicated on-line journalists, three-quarters of whom were recruited from outside the BBC.

With that sort of output, it is no wonder that one British newspaper was moved to remark that, with the launch of News Online, the BBC had become a newspaper as well as a broadcaster. The quantity of the output not only matches a daily paper – with the difference that it is updated every minute of the day – it also shows up well when measured against other Internet news services.

CNN, the world's best established Internet news service and with almost twice the number of staff, is producing only about 50 new stories a day. Users of the BBC service can click through on 500 pages and tap a rich archive of 200,000 stories using a search. Video and audio clips from TV and radio broadcasts make the offering "media-rich" and Spanish, Arabic, Cantonese and Mandarin translations are available at the click of an icon.

Valuable skills

It is easy to see how the skills of the journalists – each given the responsibility to write the story and gather supporting multimedia clips and web references – will become invaluable when interactive TV is up and running. But the difference is that while the BBC service is now achieving 25m "views" a month, CNN is getting more than that in a day on some of its biggest stories and is hitting nearly 500m views a month.

Britain, and therefore the BBC, is trailing the US in Internet use considerably. Mike Smartt – the BBC News Online editor who has worked alongside Mr Eggington since the conception of the service in May 1997 and its launch six months later – makes no bones about the catching up that needs to be done. He puts the gap at two to three years, but says that lost ground is being made up quickly.

The BBC took its time starting. In the US, the technology was more advanced and free local calls have made access easy, affordable and therefore widespread.

As the two men point out, growth in Internet use in the US is still greater than in all other markets put together, with 68 per cent of all Internet usage estimated to be in the North American market. But audiences are growing in Britain, the rest of Europe and the Far East. These are all key markets for the BBC, where its name and reputation are established through domestic broadcasting or via the World Service.

Mr Eggington is cagy about giving precise growth predictions. He points out that, to date, the audience has been doubling every three months, adding: "This period of very rapid growth should continue for at least the next three years."

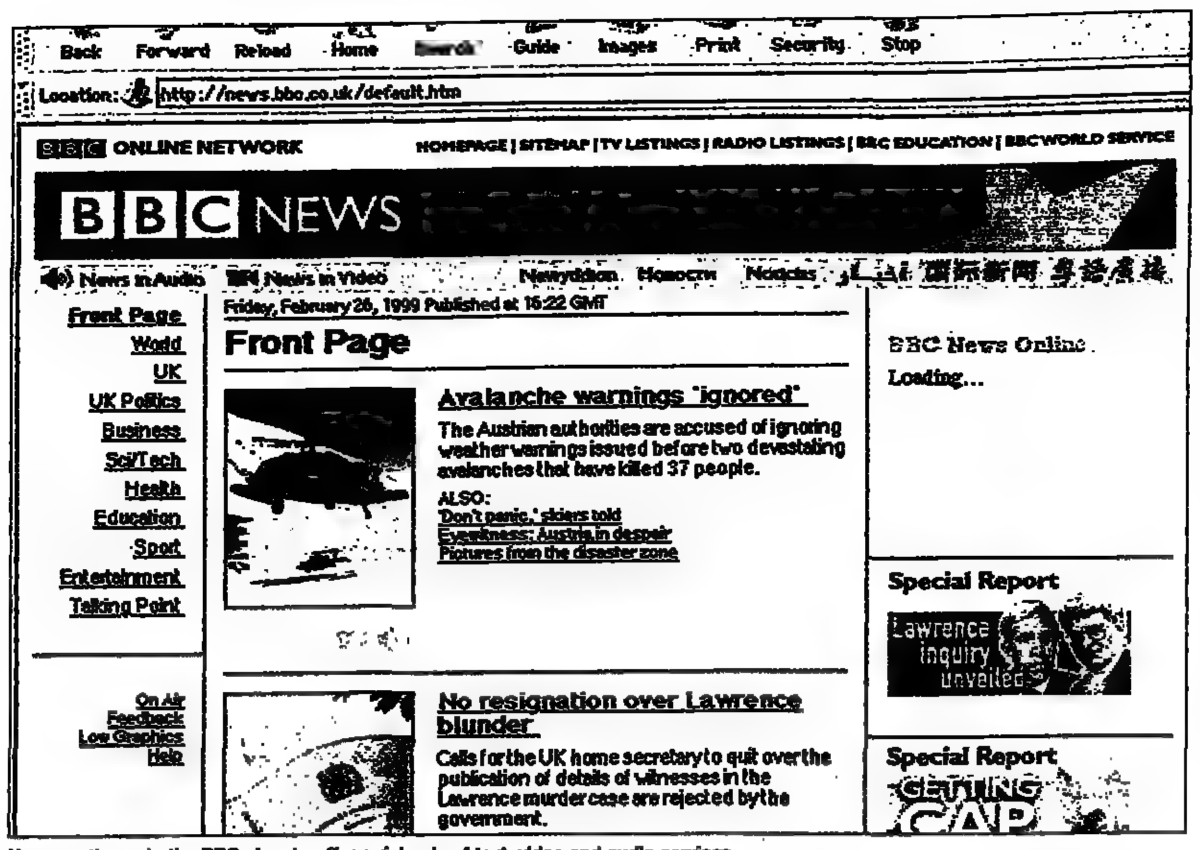
There are, of course, pros and cons to being an arm of an established public service broadcaster the size of the BBC. One clear advantage is access to the corporation's vast journalistic resources, including more than 40 foreign bureaux, which is more than all the main US online providers put together have at their disposal.

The most obvious disadvantage is being a part of an organisation which, for all its talent, can be complacent and dogged by bureaucracy and delays. The News Online team acknowledges that remaining fleet of foot – a must in the fast moving world of the Internet – while negotiating institutional budget approval mechanisms is at times challenging. The advantage is that funding, once agreed, is secure.

With £10m ($16m) due to have been spent on the service by the end of the financial year in March, News Online has attracted an estimated 33 per cent of BBC spending on online services to date. An annual budget of £7.5m – 10 per cent from the BBC World Service, the rest from the compulsory licence fee – is largely spent on staff costs, while software licensing agreements run at "a very low five-figure sum".

The BBC, as Britain's main public service broadcaster, has also set itself some lofty goals on the web. Sir John Birt, the director-general, talks of the BBC being a "trusted guide" to the Internet, building communities of interest around certain issues and striving to prevent Britain becoming a society of information haves and have-nots. In practice, these goals are fearfully hard to

Turn to page 23



News on the web: the BBC aims to offer a rich mix of text, video and audio services

CASE STUDY
PHOTODISC.COM

Internet library with 75,000 press pictures

The idea for Photodisc.com, a library of photos that can be downloaded from the Internet, was born in a brainstorming meeting. Back in 1991, Mark Torrance and Tom Hughes came up with 10 ideas. Photodisc worked on the best and generated more than $2m a month in sales towards the end of last year.

The idea combined Mr Torrance's knowledge of copyright – he had previously founded a company called Muzak specialising in "easy listening" music – and Mr Hughes' knowledge of the media. Both men felt that photographs, in a digital format, would be distributed over the Internet, and they wanted to get online early.

Photodisc, based in Seattle on the US west coast, gives Internet users nearly 75,000 images to choose from. They can even "try before they buy" by downloading the photographic equivalent of a rough sketch: a low resolution image.

The site is easy to use and photos are divided into different categories, including food and drink, science and technology, animals and wildlife and so on. Low resolution images are free; professional quality ones cost from $19.95 to $129.95. The most expensive can be enlarged to A3 size or more.

The site has been a success. It was acquired by Getty Images of the US for $160m in February 1998. And last November, it won the small-to-medium enterprise category of the FT Business web site awards sponsored by MCI Worldcom Internet company, UUNET.

Pictures of office workers are among the most popular images bought from the site. Photographers get a 20 per cent cut each time one of their images is sold. "A top Photodisc photographer can earn over $100,000 a year," according to Jonathan Klein, chief executive officer of Getty Images. Images are sold many times, which helps to compensate photographers for the fact that their pictures are royalty-free, once sold.

Commissions

Photodisc has a stable of 150 photographers on call, so commissions work from a small percentage who send in work on spec. The company shoots a lot of images at its studio in Seattle. But it often commissions new topics; for example, it has a database of apocalyptic images of the millennium. Typical Photodisc users are graphic designers and advertising agencies. "They will tend not to base a corporate identity around one of our images because anyone can use them," says Susan Dotterweich, managing director of Photodisc in the UK. "However, one of our images was used in a Chanel campaign. And the uniqueness of an image is becoming less of a concern because it is so easy to manipulate them," she says. Photodisc is also being used by a growing number of media companies, such as IPC, Express Newspapers and Associated Newspapers. It does not contain news photography, so it is more often used for supplements.

Ms Dotterweich says the main benefits of Photodisc are the speed and convenience with which images can be downloaded. Frequent users, such as IPC, can put the database on their companies' own network server, so there is no telephone cost for accessing the images. It is also possible to order CD-Roms of images from the Photodisc web site.

Another benefit of Photodisc, says Ms Dotterweich, is that it saves users the hassle of having to negotiate complex copyright deals. Instead of having to say how many times they plan to use an image, at what size, and how many copies (of, say, a brochure) they will be producing, they just pay a one-off price. After that, they can use the image as many times as they like. Last month, a new version of the site was launched. This enables designers and others to set up different "lightboxes" for different clients.

Every time, a photo for a particular client is put into their lightbox, a bill for that client is updated. So Photodisc will be able to print out the bill and pass it on to the client without extra paperwork. Users will also be able to e-mail a whole lightbox of images to a client, so they can choose the ones they want for advertising, book jackets, album covers and other purposes.

Photodisc is just the beginning for Getty Images, which owns a number of other well-known photo libraries, including Tony Stone Images, AllSport and Hulton Getty (including classic images like the Second World War blitz over London). Later this year, it plans to create a portal site on the Internet for downloading visual content.

Joia Shillingford

Advertising agencies are among the key users of Photodisc images

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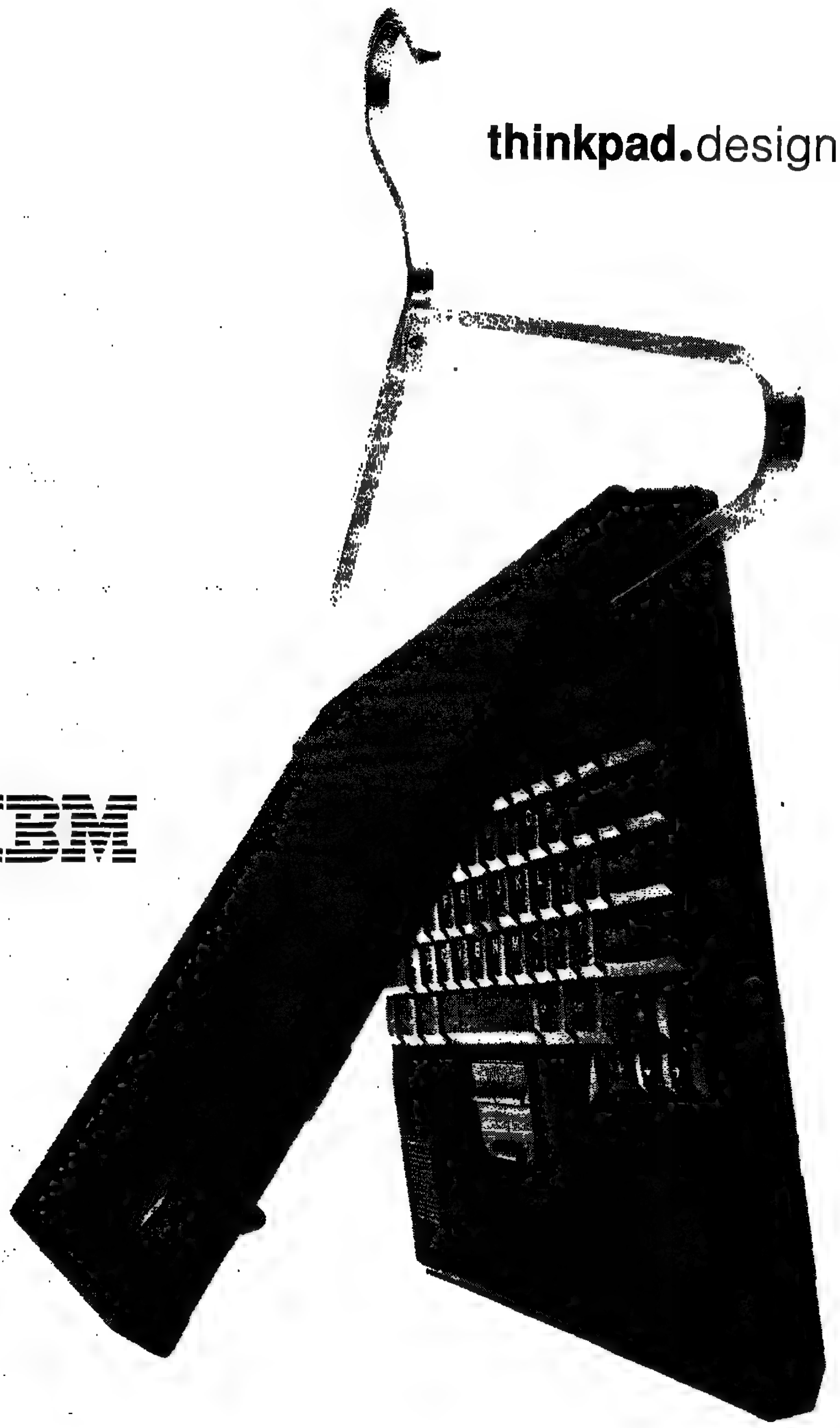

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EUROPEAN CENTRAL BANK by George Graham

Payments system is not quite on target

... but, in perspective, the initial glitches of the new set-up were not disasters. Matters could only improve

In all the preparations for the launch of the single European currency, the one thing the European Central Bank did not want to go wrong was the Target payments system. This is one of the few pieces of the euro jigsaw puzzle for which the newly created central bank is directly responsible – but it is also an essential mechanism for the smooth functioning of the euro money market.

By the end of January, however, it was clear that this was one of the few areas where all had not gone smoothly. On the positive side, national stock markets, commercial banks, custodians and securities depositories were all privately amazed at how few problems they had encountered, either in the conversion weekend leading up to the euro's debut on January 4, or in subsequent trading.

But in the payments business, banks complained of money arriving in the wrong place, of bottlenecks at the end of the day, of technical incompatibilities between different countries' payments standards and of slip-ups at national central banks.

Viewed in perspective, these were not disasters. Commercial banks worked together to sort out their difficulties, and the ECB bent the rules by delaying Target's closing time for most of January. Nevertheless, the contrast with the relatively painless transition elsewhere was embarrassing.

Where has the problem lain? There have been some localised technological issues, including a hardware failure one evening at the Banque de France. Since Target is a decentralised system, providing an interlinking mechanism for 15 different real-time gross settlement systems operated by national central banks, there have also been difficulties arising from differences between national message formats. This has prompted criticism from many commercial banks of the inadequate end-to-end testing carried out before the new system came into operation.

The ECB complained that most problems arose from banks addressing payments messages incorrectly, causing them to be rejected at the interface between their national central bank and Target (trans-European automated real-time gross settlement express transfer system).

But the heart of the matter has been less a question of technology than of the need to adapt operating practices to a completely new system.

One of the biggest issues in the first week involved the failure by some banks to adapt to the multinational nature of the new currency. In the old days, a currency was inextricably identified with one country and one payment centre, so an instruction to settle in French francs automatically went to Paris, while a D-Mark payment automatically cleared in Frankfurt. With the euro, that logic no longer applies.

In the early days of trading, it became clear that a handful of banks – mostly German but including some Dutch and US institutions – were not handling the instructions in fields 57 and 58 of a standard Swift message in the way their counterparties expected.

For example, if a German bank was asked to make a cross-border transfer to a client's account at, say, Banque Paribas in Paris, its systems were set up instead to search automatically for a Paribas account in Frankfurt, and credit that account, for the benefit of its client. The money did not disappear, but it ended up in the wrong city.

FT IT

Focus on IT in finance

The European Central Bank

Liquidity

That caused problems of liquidity management, because it might leave a bank unexpectedly short of funds in one payment system but overliquid in another. Liquidity management was hard enough already: some banks were getting used, for the first time, to the business of managing multiple liquidity pools, and many are still using several different payment systems until it becomes clearer which will be the dominant channels for euro flows.

On top of that, bottlenecks in the payments system led to some banks receiving unexpected transfers late at night, leaving them no time to place the funds in the interbank money market. This was compounded in the first week when the ECB was announcing last minute Target extensions for individual national systems which were experiencing payments problems. Banks in these countries could continue to make transfers, landing them on banks in other countries whose access to Target had already closed.

Resort to the ECB's marginal lending and deposit facilities was more extensive than had been expected, though this was partly due to the fact that the ECB adopted until January 21 a narrow corridor for these facilities. When the deposit rate reverted to 2 per cent and the marginal lending rate to 4.5 per cent, use of the two facilities became much more punitive.

In a flurry of accusation and counter-accusation, it appeared that some banks were abusing the Target extensions with late commercial payments on behalf of their customers, instead of using the window merely for interbank operations to square their books. Matters were not helped by the efforts of banks in some countries to jockey for a dominant position in the new euro clearing market.

The number of interbank claims for compensation spiralled, prompting the Heathrow Group – an association of the biggest currency clearing banks set up ahead of the launch of the euro to establish payments conventions – to recommend a simple "no blame" compensation formula.

Teething difficulties of this kind are scarcely surprising. Payments experts say it took 15 years for accepted practices and conventions to evolve in the US, which has a payments infrastructure resembling in some respects the new euro model, with regional automated clearing houses co-existing with the Fedwire RTGS system and the Chips net settlement system. Europe, however, does not have that long to sort out its payment practices.

Welcome to the euro: wearing euro-jackets, a dealer in Greece talks on the phone and watches a board showing the general price index rates, while the other observes, at the Athens Stock Exchange. The new currency made a strong debut in January, a sign that markets welcomed the single currency as an alternative to the dollar AP

The logo of the euro, the single European currency, appears on a tower above the building of the European Central Bank in Frankfurt, Germany AP

MUSIC AND THE INTERNET by Christopher Price

Discordant notes online

The music industry is being forced to take new inititatives to try and prevent digital distribution across the web from eroding its market position

Writs, disputes and illegal activities have until now appeared to dominate the fledgling relationship between the Internet and the music industry.

That all seems set to change with the realisation among many in the record business that the new medium offers more opportunities than threats for the next stage of development for the industry.

"The music industry is not suffering any revenue penalty whatosever from the Internet – it is too small," says Mark Hardie, senior analyst at Forrester, the US-based research group.

"On the other hand, there are many opportunities for increased sales of independent label music and catalogue titles from major labels, as well as the steady shift of retail sales to web-based merchants."

Rick Selvage, general manager, IBM Global Media and Entertainment Industry, agrees. "The music industry is entering a critical transition period. But while the Internet, which is driving this change, is widening the choices consumers have, it is dramatically increasing the choices companies have in serving their customers."

Evidence that the industry is being galvanised into action came last month with the announcement that the big five music groups – Universal, Sony, Bertelsmann, EMI and Warner – and IBM were developing the first integrated digital music distribution system.

The initiative – dubbed the Madison Project – is the industry's first co-ordinated attempt to wrest control of the rapidly-growing, albeit still small, market for downloading digital music from the Internet to personal computers.

Under the pilot scheme, selected households will be able to download records from the Madison Internet site. The process is expected to take around 10 minutes for 60 minutes worth of music. Crucially, the digital signals will be encrypted to prevent unauthorised copies being made.

The Madison project participants are also involved in the Secure Digital Music Initiative, which seeks to create a specification that could be embedded into any music distribution technology to protect copyright holders' property.

These initiatives have come at the end of a period of deep concern for the music industry in the face of developments on the Internet which have threatened to undermine the core revenue streams of the business.

Digital downloading of music from the Internet, much of it illegal, has spawned thousands of sites. The situation has been spurred by technological developments, such as the rise of the MP3 format as a means of compression of the digital signal.

Big boost

MP3 allows anyone to transfer CD recordings to the Internet for others to download freely – a violation of copyright laws. MP3 sites now abound on the Internet. The Recording Industry Association of America (RIAA) estimates that more than 200,000 songs are on the Internet illegally for anyone to download without paying royalties.

The platform received a huge boost last year with the introduction of a portable MP3 player from Diamond Multimedia Systems, a US electronics group.

The RIAA response was to attempt to ban distribution of the machine through the courts. It lost, and in the view of Forrester's Mr Hardie, "only accelerated the take-up of MP3 more than anyone else could have done."

Since then, MP3 has begun to make inroads into the legitimate side of the music industry. For example, in January, MP3.Com, the download, news and community site, received $11m in funding from venture capitalists specialising in high-growth Internet stocks.

In other developments, Lycos, the search engine company said it would launch an MP3 database, and Internet record company GoodNoise won a licence from a big music agency and a record label to deliver songs via MP3.

The announcement of the Madison Project, therefore, has come at a timely moment for the music industry.

Mr Hardie believes that technology will drive the development of other platforms and standards before the year is out. And with the recources of the big five music companies firmly trained on the Internet and digital downloading, he believes the future of MP3 as a force will become increasingly marginalised.

"When the record companies begin to release their big names on secure systems – the REMs and the Celine Dions – we will all abandon MP3." Yet even with some sort of consensus over the secure transmission of music online, the industry still faces profound changes.

"Consumers will use technology for introduction to music, access to artists and music acquisition," argues Mr Hardie. "Empowered indie [independent] artists will pursue technology-driven routes to mass market success.

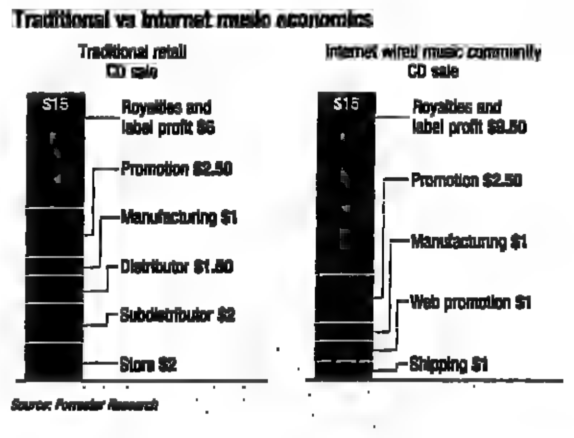
"Distribution systems will be tested under increasing pressure to provide digital delivery. Meanwhile, the rules for retail will be rewritten to include the efficiencies of the fourth channel. The Internet's impact will be felt throughout the industry."

Ted Hooban, technical director of CDNow, the online music store, says the company is developing download products in order to take advantage of the market once a mainstream industry standard emerges.

"There are still some very big issues to be addressed, concerned with bandwidth, security and portability," he says. "But once these are settled, the potential for the Internet and music industries is enormous."

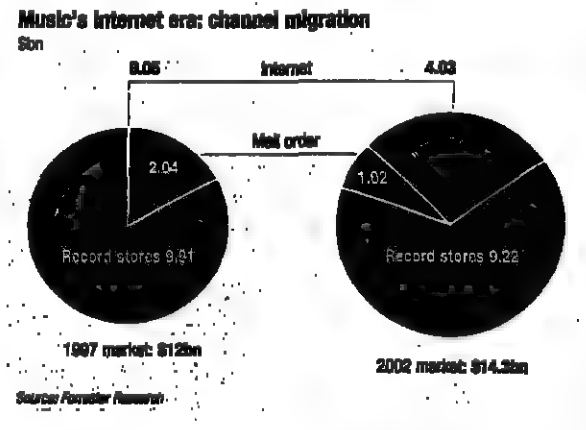
IBM's Mr Selvage says: "It is premature to predict how the marketplace will develop. IBM is convinced, however, that the music industry will fully participate in the dramatic growth of e-commerce and that purchasing music and other forms of entertainment content will soon be commonplace."

Traditional vs Internet music economics



Source: Forrester Research

Music's Internet era: channel migration



Source: Forrester Research

BBC online network

From page 20:

achieve. But some are taking shape, albeit in a fairly haphazard way. Online coverage of last year's atomic bomb tests in India and Pakistan was tagged with a "What do you think?" label. Within 24 hours of the first explosion in India, 7,500 e-mails had been returned, mostly from Asian people in the region and around the world.

The debate, one that could not have been organised by TV or radio alone, raged for a week. "What was interesting was that, in one sense, the diaspora had reassembled online," says Mr Smartt.

The challenge for the future, he says, is how to build such online communities in a more consistent way without forgetting that the main task is to get the news out. But that is difficult since, by their own admission, the News Online team knows relatively little about its audience. The small amount of research that has been done has revealed little more than that users break down into three categories: regular domestic and world service viewers and listeners; the expatriate British community who gather to watch the 9 o'clock news online and get the football results; and those, largely in North America, who have stumbled on the service and like it.

Key audience drivers are erratic movements in world stock markets and the demands of those who want the latest on a breaking story or reliable and up-to-date news summaries at any time of the day or night. Science and technology is a consistent interest of the Internet audience, typically proving the second or third most popular story of the day even if it is not posted that high on the running order.

The BBC has made no attempt to market its online service except by flying a small flag on the end of the TV news and placing a few Adverts. That will change because the goals for the service are very ambitious. "We want to be the dominant news provider everywhere except in North America. We've no intention currently to take on North American web sites."

Meanwhile, the experiment continues. But if the production of Internet news is as precarious and experimental as the News Online team suggest, how come the audience is not more disatisfied?

"The Internet audience is still very forgiving," insists Mr Smartt.

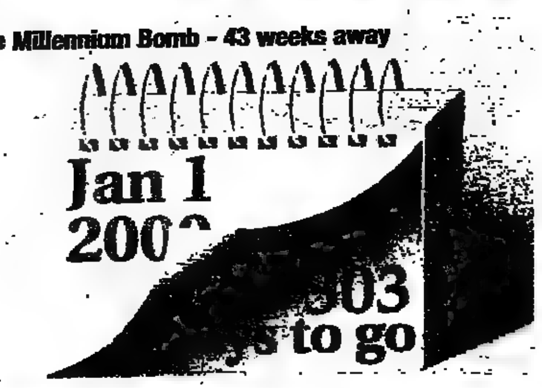
Simon Beavis

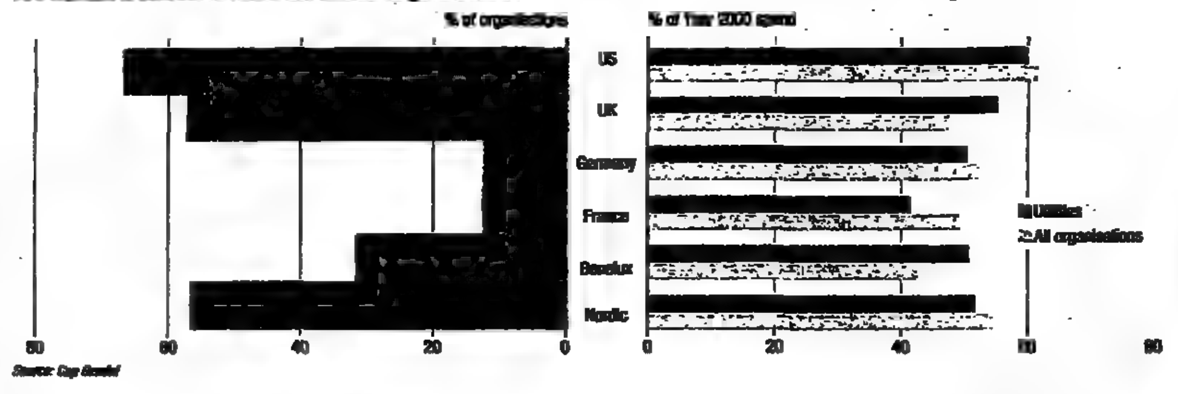
Legendary bluesmaster B.B.King played his guitar live during a digital jam session at Microsoft's virtual music studio in Redmond, Washington, with audio manager Steve Boyce. King improvised blues 'riffs' allowing an online audience to 'jam' with him AP

YEAR 2000: FOCUS ON THE UTILITIES by Christopher Price

Questions linger on energy

If a country's power supplies fail due to the so-called millennium "bomb", then the consequences could be disastrous. But power experts in Europe and North America are generally confident that the problem in their regions has been resolved





Will the lights stay on when the clock strikes midnight on December 31?

"Almost definitely" is the answer from the electricity industry, which is pouring funds into solving the so-called Y2K computer date issue to ensure that power supplies remain uninterrupted as the world moves into the next millennium.

The mostly positive response – seen most recently in reports from the US and UK power industries – also reflects a concerted response from governments to make sure one of their most vital industries computer systems are year 2000-compliant. However, the concerns that remain are based on the hugely complex and interdependent systems behind power generation and distribution.

The North American Electric Reliability Council (NERC), the body charged with monitoring the industry's preparations in the US and most of Canada, said recently it was worried over the readiness of some utilities in the region.

In particular, the NERC expressed anxiety over whether they would have their mission critical systems checked and compliant by the end of June – the date set by the authority for full testing procedures to begin. The council fears that any slippage from this timescale will threaten its ability to declare the industry fully ready for the end of the year.

Bill Richardson, the Energy Department Secretary, commented: "This is a matter of significant concern. In the Y2K readiness league, our goal must be to have a 1,000 batting average."

The NERC had previously raised other concerns. Systems running voice and data communications, needed for monitoring and control of power systems, were identified as being of importance.

Worries were also expressed over the interdependence of electrical system operations on external communications providers, natural gas supplies and rail transportation of coal. Co-ordination efforts needed to be improved at the industry and individual organisation levels to "provide mutual assurance of resources and capabilities".

However, the NERC also expressed confidence that the industry could, given its wide experience of previous disruptions, cope with the situation. "In an industry that meets record peak demands during heat waves and quickly restores service to millions of customers who lost power due to a hurricane or earthquake, preparing for and dealing with operating risks is an ingrained part of the business."

Indeed, despite its other misgivings, the authority delivered an overall upbeat assessment in its latest report, concluding that there will be a "minimal impact" on the industry from the year 2000 computer problem.

In its latest report, Action 2000, the UK government's co-ordinating body, also appeared optimistic about the lights staying on.

Action 2000 has appointed officials from Offer, the electricity industry regulator, to monitor progress. It has also commissioned a report from independent consultants.

Peter Carter, deputy director-general of electricity supply, says of the latest findings: "The independent assessment is initially targeting the 20 or so major players in the electricity sector, the major generators, transmission and distribution companies.

"With about half the assessments complete . . . these companies are well on their way. They have largely completed work to rectify critical systems but some tests to demonstrate full confidence remain outstanding. Companies are indicating completion of testing in the second quarter of 1999," he says.

The Electricity Association, the UK industry representative body, said electricity companies were spending more than £200m on fixing the millennium "bomb". It has also formed a task force to promote readiness from "the power station to the power point".

Action 2000 introduced a colour coding scheme to indicate the readiness of the UK's vital industries:

- Blue for the reduction of risk to minimal if any disruption.
- Amber for on course for blue status within an appropriate timescale.
- Red indicating that current preparations are not sufficient to achieve blue status.

There are worries about the readiness of some utilities in North America

The electricity industry was judged 46 per cent blue, 52 per cent amber and 2 per cent red. According to Mr Carter, the latter referred to some older generating stations, which the power companies use intermittently, usually at peak periods.

"We will be pursuing with the companies what exactly they intend to do about these." He adds, however, that given the infrequent use of the stations, their effect on the UK's power supply would be inconsequential even if they remained uncompliant.

Financial services was the only other industry to receive any red marks. Michael Foot, managing director of financial supervision at the Financial Services Authority, says "a few financial firms" were considered to be in the high-risk category.

The financial infrastructure was judged blue, and those companies in "high impact" areas, such as high street banks, were a mixture of blue and amber. The small number of reds were being pursued. "They are well aware who they are and are under intense supervisory scrutiny," says Mr Foot.

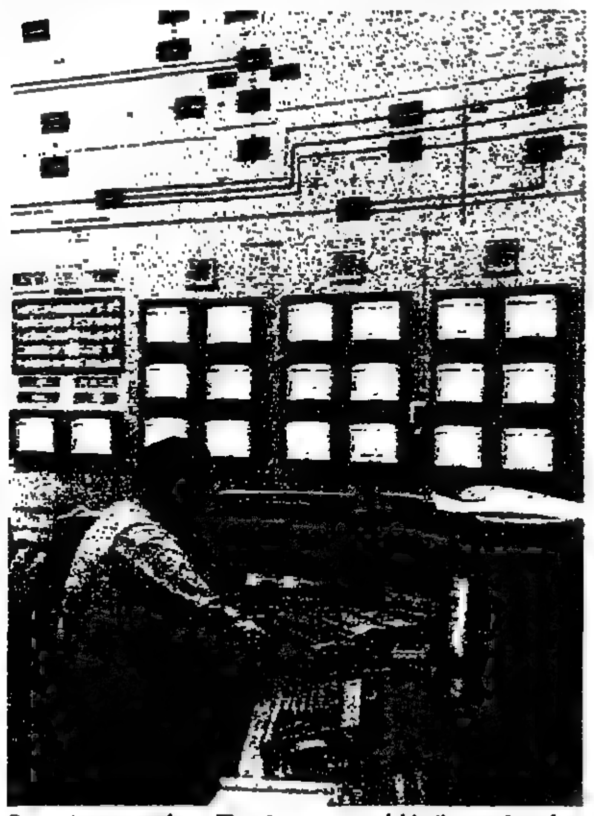
"If they do not improve, we will take action to restrict their business, or close it down. We must protect the integrity of the markets and the position of investors."

The gas industry was 85 per cent amber and 15 per cent blue. The telecommunications, water and offshore oil and gas industries, were 100 per cent amber, with their regulators also producing an upbeat report on their readiness.

The oil and gas industry is the only one not to be monitored by a regulator as it is not governed as other utilities. Therefore, the companies and its industry association are undertaking their assessments themselves.

To offset criticism of this, the government's Department of Trade & Industry has appointed independent assessors to check the industry's readiness.

□ Further case studies by Christopher Price on how various industries are approaching the Y2K issue will be featured in the FT-IT Review in the coming months.



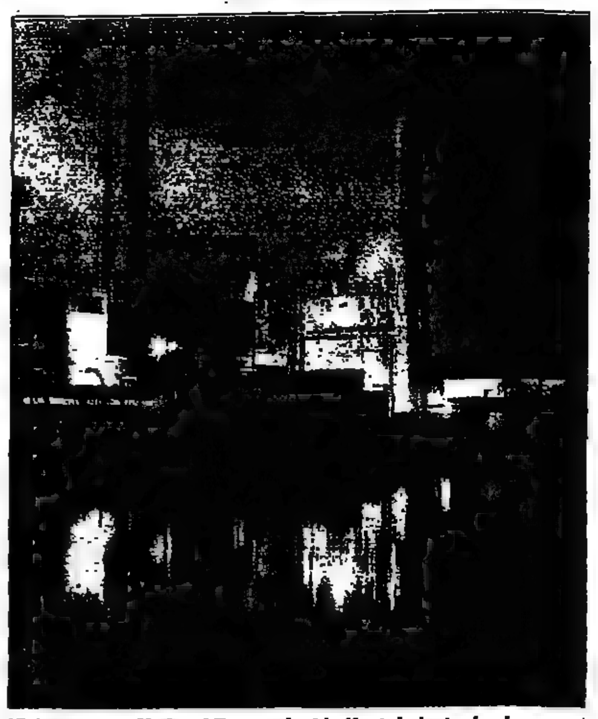
Computers everywhere: IT systems are crucial to the running of power plants. Pictured here is an engineer monitoring power generation at New York State's Power Pool AP

Levels of risk

Year 2000 exposure and compliance by sector

	Compliance	Exposure
Finance	High	High
Banking	High	High
Insurance	High	High
Air transport	High	High
Telecommunications	Medium	High
Manufacturing	Medium	High
Most government services	Medium	High
Energy	Medium	High
Shipping	Medium	Medium
Other government services	Medium-Low	High
Health care	Medium-Low	High
Retail trade	Medium-Low	High
SMEs	Medium-Low	Medium
Agriculture	Medium-Low	Low
Construction	Medium-Low	Low

Source: OECD



Night scene: a National Power plant in Kent. Industry leaders are confident that in the UK, at least, the lights will stay on at the turn of the year, but that may not be true in less-developed nations

FT-IT REVIEW

Business themes for the coming months

A special issue of the FT-IT Review will appear later this month, on the theme of electronic business. E-business, as it is called, has become more than just a talking point or the latest fad in the IT industry.

E-Business, to be published on **Wednesday, March 24**, will highlight the inexorable drive towards a fully networked global business environment, with instantaneous communications and unprecedented availability of information.

The review will show how traditional business models and attitudes are being overhauled radically, forcing laggards to catch up or fall by the wayside.

New business entrants - their names unknown a few years ago - are forcing the pace of competition across the commercial spectrum.

Business Solutions Series during the year

There will also be a series of special issues on Business Solutions during the year.

Each issue (see dates below) will have a main theme, such as knowledge management, enterprise resource planning, and managed services and outsourcing.

Monthly FT-IT Reviews

During 1999, each of our regular monthly reviews will carry features on:

- IT in finance, with a special focus each month.
- Views from the top: Interviews with leaders in the IT industry, as well as interviews with corporate IT users.
- Updates on the millennium date issue, with a focus on specific business sectors.
- Electronic business.
- IT news update.

April 3, FT-IT Review
- **Main theme:** Internet issues.
- **Second theme:** Java update.
- Plus regular features, including:
- IT in finance - focus on insurance.
- Update on the millennium date issue.

May 5
- **Main theme:** *Mid-sized enterprises - selecting IT strategies.*
- **Second theme:** Telecommunications - increasing convergence in information and communication technologies.
- Plus regular features, including:
- IT in finance - focus on venture capital.
- Electronic business.
- Year 2000 update.

June 2
- **Main theme:** Windows - what's at stake?
- **Second theme:** IT in manufacturing: focus on the cad/cam sector.
- Plus regular features, including:
- IT in finance - this month's emphasis is on personal finance.
- Electronic business.
- Year 2000 update.

July 7
- **Main theme:** Electronic commerce and the wired business.
- **Second theme:** IT and the law in the run-up to the year 2000.
- Regular features, including:
- IT in finance - focus on retail banking.
- Electronic business.
- Update on the millennium date issue: focus on specific business sectors.

There will be no issue of the review in August.

September 1
- **Main theme:** IT in retailing.
- **Second theme:** Supply chain management.
- Plus regular features, including:
- IT in finance - focus on risk management.
- Electronic business.
- Year 2000 update.

October 6
- **Main theme:** Continuity planning ahead of the millennium "bomb".
- **Second theme:** IT in education.
- Plus regular features, including:
- IT in finance - focus on investment banking.
- Electronic business.

November 3
- **Main theme:** Continuity planning for the year 2000 (part two).
- **Second theme:** IT in travel and leisure.
- Plus regular features, including:
- IT in finance - focus on fund management.
- Electronic business.

December 1
- Main theme: The Cyber Millennium.
- Second theme: IT in the search for the stars.
- Plus regular features, including:
- IT in finance - focus on securities markets.
- Electronic business.
- Focus on the imminent year 2000 date issue.

Business Solutions Series and mid-month IT specials:

During the year, we will also publish a series of extra reviews on key business issues, including:

- E-Business: **March 24.**
- *Knowledge Management:* **April 28.**
- *Enterprise Resource Planning:* **May 26.**
- Managed Services and IT Outsourcing: **June 23.**

In addition, the FT-IT Review will carry special features during 1999, *including:*

- South Asian Software Development: **July 7.**
- Working in the IT industry: **October 6.**
- India's IT industry: **December 1.**

Meanwhile, during February, March and April, a 12-part tabloid series, called Mastering Information Management is also appearing with the FT.

The first issue, edited by Tim Dickson, appeared on February 1, with the focus on improving company performance.

The next issue on February 8 will focus on competing with information.

For details of back copies, call: +44 (0) 181 688 6323.

For more information

Editorial synopses: For more details of the next two issues of the FT-IT Review, (excluding the series on Mastering Information Management), please use the special fax-u-back service on: 08705 209 903. (Callers outside the UK dial exit code: +44 8705 209 903). In the event of problems, send a fax request to Rowena Carr-Allinson, FT-IT Review on 0171 873 3197, or e-mail: Rowena Carr-Allinson@FT.com

Advertising: full details plus e-mail addresses relating to the FT-IT Review and the Business Solutions series can be found in the information panel on page three of this current issue, or write to the Financial Times, Number One, Southwark Bridge, London, SE1 9HL.

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COMPANIES & MARKETS
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INSIDE

EIB to issue €15bn of bonds in 1999
The European Investment Bank has sought to reaffirm its status as Europe's leading issuer of non-government bonds by unveiling a big euro-denominated benchmark debt issuance programme. The EIB said it would issue up to €15bn of benchmark bonds this year across the maturity spectrum. **Page 24**

Sugar prices leave producers bitter


Sugar is set for a long haul at low prices as rising production and currency devaluations among exporters maintain the pressure on producers. Raw sugar has been trading at its lowest price for 12 years on New York's Coffee, Sugar and Cocoa Exchange and there was little sign of relief for the market. The weak prices seem to be part of a long-term trend. **Page 26**

Iridium drags satellite phones down
The handheld mobile satellite telecommunications sector fell to earth with a crash on the news that US provider Iridium may breach its banking covenants just four months after launch. The company blamed disappointing revenues on technical problems and marketing difficulties with the service, the first to enable calls to be made to and from a standard size mobile phone anywhere in the world. **Page 20**

Vienna waltzes past neighbours
Austria's stock market, after years of underperformance, has sprung to life. While most European markets headed lower in February, Austria rose 9 per cent, a performance in marked contrast to recent years. **Page 36**

Brazilian Real slides to new low
The Brazilian Real slid to a new low despite central bank intervention. The bank began to sell dollars at R$2.10 early after the market opened, stepping in again several hours later when the Real hit a low of R$2.22. It closed at R$2.15 in London. **Page 25**

Weather derivatives set fair
Weather derivatives took another step towards becoming standard financial products when the first contract in France was announced between Soccram, a company specialising in heating efficiency and cogeneration systems, and SG, the French banking group. **Page 24**

German business faces lower sales
The German stock market absorbed more bad news as SGL Carbon, the carbon and graphite products group, said it would not pay a 1998 dividend. The group's net loss of DM264m (€134.7m) last year reflected a trend among German companies of lower sales and poor earnings prospects related to the slowdown in exports and higher costs at home. **Page 18**

COMPANIES IN THIS ISSUE

CROSSWORD, Page 26

MARKET STATISTICS

RJR set for overseas disposal

By Andrew Edgecliffe-Johnson

Non-US tobacco business could be worth $6bn

RJR Nabisco is expected to announce the total or partial disposal of its international tobacco business within 10 days, which could value the division at about $6bn.

People close to the auction said yesterday that second-round bids for RJR's non-US tobacco assets – which include the Camel, Winston and Salem brands – should come in this week.

They added that the tobacco and food group was also understood to be considering a joint venture to share the expected benefits of putting RJR International together with a larger group.

RJR put the business up for auction last year, saying it lacked the scale to compete in the global market.

Any joint venture would have to take on the $2.5bn-$3bn debt assigned to RJR International, which covers cigarette businesses ranging from Asia to Eastern Europe.

The strategic importance of its brands has attracted interest from industry giants Philip Morris, BAT Industries and Japan Tobacco. Also interested are Gallaher, and Imperial Tobacco of the UK; and Seita of France in alliance with Tabacalera of Spain.

BAT, which had been seen as the most likely buyer, is believed to have decided, following its £5.3bn acquisition of Rothmans in January, that its hands are full.

Gallaher and Imperial are also believed to have ruled out a full bid, but both are said to be interested in acquiring regional assets that may be sold off by the successful buyer. David Adelman, tobacco analyst with Morgan Stanley, said the business should sell for at least $5bn. Speculation that the bidding could reach $6.6bn was "not unrealistic," he added.

Martin Feldman of Salomon Smith Barney said Philip Morris was the most likely buyer, but antitrust restrictions could force it to sell RJR's European Union assets to BAT, Gallaher, Seita or Tabacalera.

RJR is thought to be eager to announce a deal by March 12, the date by when proxies for its May 12 annual meeting must be filed.

Carl Icahn, the corporate raider who holds 7.7 per cent of RJR's stock, is expected to make a further attempt to force a break-up of the group's food and tobacco operations at the meeting by proposing boardroom changes.

Operating income from RJR International fell from $759m to $468m in 1998 as the business took a sharp knock from the Russian crisis in the third quarter and Asian volumes dropped.

Merrill Lynch expects profits of $565m in 1999.

NEW PURCHASE IN REMOTE ACCESS FIELD AIMED AT PLUGGING GAP FOLLOWING XYLAN DEAL

French telecoms group to reveal second acquisition

By David Owen in Paris and Roger Taylor in San Francisco

Alcatel, the French telecommunications equipment company, expects within days to reveal a second big acquisition following its $2bn agreement yesterday to buy Xylan Corporation, a California-based data switching specialist.

Both deals are aimed at strengthening Alcatel's position in the fast-growing data networking market.

Serge Tchuruk, Alcatel's chairman, indicated an imminent second acquisition would be in the field of remote access, which the company portrays as the only substantial data networking market segment that the Xylan deal will not bolster. However, he declined to give details.

Mr Tchuruk described yesterday's deal as a "major step" in the company's strategy of becoming "a key worldwide player in the internet field".

Steve Kim, president of Xylan, said the "synergies from combining [our] technology with Alcatel's resources will provide a dramatic boost to Xylan's future success".

The market applauded the news. Alcatel's shares, which last September lost close to 40 per cent of their value in a single day following an unexpected profit warning, rose 5.34 per cent to €101.5.

Douglas Smith, technology analyst with Salomon Smith Barney in London, said the deal would "fill up some of the holes" in the data networking area of the French company's product portfolio".

"It is a deal that they have needed to do because they are under a threat from the three large North American companies – Lucent, Cisco and Nortel.

"The $37 a share price – a premium of 37 per cent over Xylan's closing price on Monday of $26⅞ – was "probably fair considering they are buying a company with strong topline growth, good margins and a product portfolio synergistic with their own".

With Alcatel's balance sheet strong and its share price still at a relatively low ebb following last September's debacle, it is no surprise that the acquisition will be made via a cash tender offer – in contrast to the all-paper transactions that are helping to drive rapid consolidation of the industry.

The offer will begin on March 8 and is scheduled to expire 20 business days later. Completion, expected in early April, is subject to 90 per cent of shares being tendered. The boards of directors of both companies have unanimously approved the deal.

Trying to catch up, Page 18


Major step: Alcatel chairman Serge Tchuruk

Deutsche Bank plans branch network in France

By George Graham, Banking Editor

Deutsche Bank yesterday changed tack in its efforts to create a pan-European bank when it announced plans to build its own branch network in France.

The bank said it had asked the French supervisory authorities for clearance to set up a network targeting affluent households with asset management and savings products. It aims to combine a small network of branches with modern connections such as telephone and internet banking.

The move fills the biggest hole in Deutsche Bank's European network and, coming shortly after the launch of the euro, marks a new phase in the development of a European financial services market.

Although cross-border branches are nothing new in the corporate banking market, few banks have built retail branch networks outside their home country.

Deutsche Bank, the biggest German private sector bank, now has subsidiaries in Italy, Spain and Belgium. But it has until now been frustrated in its efforts to buy its way into the French market.

Rolf Breuer, Deutsche Bank's chairman, said last year his chances of a French acquisition had been hampered by the takeover of AGF, the French insurance group, by Allianz, the German insurer. He concluded that the French government's insistance on "reciprocity" meant Deutsche Bank would not be allowed to make a French purchase until a French institution had succeeded in an acquisition in Germany.

Analysts estimated that a 10 branch network, the expected size, could cost around €50m ($55.50m) in investment costs and start-up losses, a relatively modest bet for Deutsche Bank.

Claire Gouzouli, a financial services specialist at First Consulting, said the introduction of the euro made it much easier for Deutsche Bank to offer asset management services in France.

"They can make a better argument to French customers now than they could four years ago. But the key driver is that profitability in Germany is wafer-thin and anything else in Europe is going to look more attractive."

Bacardi may look at IPO to finance purchases

By John Willman in Paris

Bacardi-Martini, the private company which is the world's fourth largest spirits group, could consider a public share offering in the next few years to finance acquisitions of premium brands to complement its existing range.

The Bermuda-based group, which makes the white rum that is the world's best-selling spirit, paid £1.15bn ($1.8bn) last year to buy Dewar's *scotch whisky* and Bombay gin from Diageo, leaving it with net debt of over $2bn.

Bacardi believes there will be more opportunities to acquire leading brands in the next few years and wants to add a vodka and a tequila to its portfolio. It was willing to turn to the stockmarkets for capital, Chip Reid, chief executive, said yesterday.

"There are a lot of opportunities now in the industry that can solidify the company's strength in the years to come," he said. "To exploit those, it would be necessary to partner with the public."

He said there were no plans for an immediate stock market issue, but it was a possibility in the medium term, if there were no other financing options.

Bacardi's board has accepted that an offering could be necessary. Possible targets would include Finlandia, the Scandinavian vodka, and José Cuervo, the tequila distributed in the US by Diageo.

An IPO, which would involve less than half the company's equity, could give the group a market value of $6bn, according to one analyst. Net earnings in the year to March 31, 1998 were $220m, while the two brands bought from Diageo made operating profits of £95m a year.

Founded in Cuba in 1862 by Don Facundo Bacardi, the company first attracted international attention during prohibition in the US, as tourists made the 90-mile crossing to the Caribbean island for Bacardi and Coca-Cola. It relocated to Bermuda in 1960.

In 1992 it paid $2bn to buy Martini & Rossi, the Italian company that makes vermouth.

Lex, Page 14

BARRY RILEY

An American invasion

A select group of London investment bosses yesterday took time off from inspecting the shortfalls in their investment returns to debate the threat of an American stranglehold on London's fund management industry.

Headhunters Russell Reynolds Associates sponsored a breakfast debate on the motion: *This house believes that market forces favour US firms over their European counterparts for dominance of the UK investment scene.*

Recent US acquisitions of UK houses ranging from Mercury Asset Management to Newton, together with rapid expansion into the UK pension fund market by the likes of J.P. Morgan and Capital Research, have highlighted the issue.

At the same time, London's once powerful position in ERISA global equity mandates (world ex-US equity mandates for US pension plans) has been seriously eroded.

London has long enjoyed the advantages of a strong equity-based culture and an international outlook but has never managed to build genuinely global investment firms.

Historically, London's main international strengths have been in the Far East and the emerging markets, but these areas have become liabilities in the past two years.

London-based managers are working hard to build expertise in continental Europe, but they have disastrously misjudged the US equity market.

The Americans, meanwhile, are on the crest of a wave. Wall Street represents around 52 per cent of global equity capitalisation, giving them a tremendous natural advantage.

But would US dominance outlast a Wall Street crash?

The motion of the debate was proposed by Alan MacFarlane of the independently owned Global Asset Management. It was opposed by Nicola Horlick of SG Asset Management, the recent London startup backed by the French bank Société Générale. The chairman was Alistair Ross Goobey, chief executive of Hermes Pension Management.

I have agreed not to attribute the remarks made by the main speakers or the contributors from the floor, but I can report the main themes, which were generally defeatist.

The Americans, it was felt, were setting the agenda: they had established the processes and terminology common in the industry, and the *chartered financial analyst* (CFA) qualification was becoming the global standard.

Another theme was: "Blame the clients." It was said that UK pension schemes, run by company secretaries and amateur trustees, lacked sophistication.

US plans, by contrast, are typically managed by investment professionals who have diversified their external managers more shrewdly.

British schemes, however, were said to have naively chased short-term performance and concentrated their bets on a handful of balanced managers, almost all of which are now in crisis (though surely these managers were not *forced* to accept so much business if they could not handle it).

There was trepidation about a general switch from final-salary pension schemes to defined-contribution structures, where the Americans have greater experience.

Stuffy London institutions would need to develop popular brand images to succeed in this kind of business.

The main counter view was that the Americans would not prove any more successful in invading the European culture than they had in the past. Moreover, a huge switch in continental Europe from pay-as-you-go to funded pensions, a shift eagerly anticipated by the Americans, might take an awfully long time.

Nobody seemed ready to *predict, though, that Wall* Street would soon crash and take most of the aggressive US investment groups down with it.

The motion was carried overwhelmingly, by 20 votes, with only one against.

One speaker considered, however, that the American threat was relatively small compared with that of the home-grown index-trackers massing at the gates.

LVMH outlines gains for Gucci

By Samer Iskandar and David Owen in Paris

Gucci, the Italian fashion house, has a lot to gain and little to lose from a closer alliance with LVMH, its French rival and largest investor with a 34.4 per cent stake, a senior LVMH executive claimed yesterday.

Gucci could improve its commercial and financial performances substantially, by exploiting synergies and learning from LVMH, said Yves Carcelle, chairman of Louis Vuitton, LVMH's flagship leather goods arm.

His comments are part of efforts by the French group to gather support for its proposal to appoint a director to Gucci's board. Gucci is strongly opposed to the proposal, citing potential conflicts of interest. Gucci shareholders are to vote on the appointment at an extraordinary general meeting on March 23.

The rival groups are also involved in legal proceedings due to start in Amsterdam today. LVMH is asking the court to cancel the voting rights of new shares issued 10 days ago by Gucci to a newly-created employee share option plan. The share issue weakens LVMH's voting rights.

Louis Vuitton claims its operating margins are roughly double Gucci's 24 per cent. "We have built an operation which is a benchmark for the industry," Mr Carcelle said. "Any company associated with us can benefit from the efforts we have made over the past decade."

He also said that by joining forces, LVMH and Gucci could improve their bargaining power when purchasing raw materials, achieve savings from using the same agencies to buy advertising space; exploit economies of scale in distribution; and reduce administrative costs by merging some of their back-office operations.

The two groups could also learn from each other. Gucci's quality control could be improved by transposing Louis Vuitton's highly integrated production process. The French company could also benefit from Gucci's longer experience in the shoe business, as well as its successful diversification into watches.

SOFTWARE DUTCH PRODUCER BLAMES DEFICIT ON MILLENNIUM BOMB AND WORLD ECONOMIC PROBLEMS

Baan loses $315m after write-off

By Gordon Cramb in Huizen

Baan Company, the Dutch producer of business software, expects a "difficult year" after sliding into a 1998 loss of $315.2m.

The results, released yesterday, compare with net profits of $77.2m the year before, and was worse than the company had forecast as recently as January. It reflects the write-off in a restructuring programme of $45m more than planned.

Shares in Baan slipped 6.5 per cent to close in Amsterdam at €7.85, matching the low point they reached last October, when the company warned that dozens of substantial orders had failed to materialise. It blamed the setback in part on world economic slowdown but largely on the millennium date problem affecting computers.

Yesterday Tom Tinsley, chairman, said it would remain adversely affected in 1999 "as companies focus on being Y2k-ready rather than buying software".

Baan ranks second to Germany's SAP in the market for enterprise resource planning (ERP) software, which allows industry to manage its supply chain.

And Mr Tinsley – who took over last year from Jan Baan, the founder – acknowledged that another factor was at play in the ERP sector. Customers were simply placing smaller initial orders. He expected these to be added to later, saying: "It changes the character of the market; it does not change the attractions of the market."

Last year Baan had a "record number of licensing deals in the third and fourth quarters, but worth only half the amount of money" as in the same period of 1997, he added.

The lower value per transaction also reflected Baan's push into what it calls the mid-market of companies with annual turnover of up to $350m.

Klaas Wagenaar, chief financial officer, said performance in the first two months of this year was "in line with what happened in the fourth quarter". After write-offs, those three months ended in a $294.7m loss, against earnings the time before of $29.1m.

Although Baan said it saw no renewed round of job cuts, the positive effect would be felt only from the second half. Analysts expect a 1999 result around break-even.

While third-party licence revenues more than halved in October-December to $48.9m from $101.5m, income from maintenance and service operations grew 42 per cent to $105.5m. The group expects to derive an increasing share of its sales from contracts to service products already installed.

Following complaints by institutions about a lack of transparency, the supervisory board is being strengthened. At its head will be Pierre Everaert, previously a director of Philips, the electronics group.

See Observer

Telecoms traditionalists try to catch up with the net

The conservative sector is being transformed by the success of internet protocol-based traffic, writes **Paul Taylor**

As John Chambers, chairman and chief executive of Cisco, the US-based networking equipment leader, is fond of saying: "The internet changes everything."

That growing realisation has sent shudders through the boardrooms of the traditional telecommunications network operators and their equipment suppliers and it has led to a series of multi-billion dollar strategic acquisitions that are reshaping the networking equipment industry.

Nortel paid $7bn for Bay Networks in August last year, Lucent last month bought Ascend for $19.3bn, GEC spent $2.1bn on Reltec earlier this week and yesterday Alcatel of France made a $2bn all-cash offer for Xylan.

This scramble by the traditional telecoms equipment manufacturers to purchase often "upstart" data networking companies reflects the seismic impact that the growth of the internet and telecoms traffic based on internet protocol has had on a historically conservative and slow moving sector.

The seeds of this revolution were sown years ago when the technologies of the computer industry began to diverge from those adopted by the much older telecoms industry.

However, it is only since the commercialisation of the internet in the mid-1990s and the adoption of IP as the de facto data networking standard for both internal and external data communications, that the issue has come to the fore.

Traditional circuit-switched voice networks are built around computer-style devices that establish an end-to-end link between caller and recipient. These are very reliable, but inefficient in their use of bandwidth, or capacity.

In contrast, IP-based networks use packet-switching technology – which divides data up into small parcels or packets for transmission – a much more efficient way to transmit information.

Traditional telephone network operators and their suppliers have invested huge sums in building the vast circuit-switched networks that span the globe.

But in recent years they have watched as IP-based traffic has caught up with, and in the case of the US and now Britain, overtaken conventional voice traffic. While traditional voice traffic grows by 3-5 per cent a year, IP-based traffic has been growing at 500 per cent a year.

In the process, a new generation of fast-growing telecoms companies such as Worldcom and Qwest have emerged, backed by data networking equipment suppliers such as Cisco, 3Com and Ascend. Meanwhile, the privatisation and liberalisation of the telecoms market has added further competitive pressure.

For the traditional telecoms equipment suppliers such as Nortel, Ericsson, Lucent, Alcatel and Siemens this has posed a challenge for several reasons.

Telecoms equipment suppliers lacked the technical expertise to build IP-based equipment, and this has mainly driven their recent spending spree. But historically they have also lacked the marketing drive and competitive sales instincts of their smaller data networking rivals.

In particular, they have been used to operating in the relatively staid environment of the telecoms industry, where engineering standards are set by bureaucratic international bodies, sales cycles are measured in years rather than months, and their main customers until recently were mostly state-owned monopolies.

These deficiencies have clearly been recognised by the new generation of senior executives running many of the traditional telecoms equipment suppliers. They believe that the acquisition of new companies such as Bay Networks, Ascend and Xylan will not only provide them with the technology they need to compete in the new internet world, but also an infusion of competitive corporate culture.

Thus, although Alcatel's bid for Xylan was seen as relatively highly-priced, it was also welcomed by analysts yesterday because it extends considerably Alcatel's product range and gives it improved access to the important US market.

In the wake of the Alcatel deal, analysts expect more announcements – both Sweden's Ericsson and Siemens of Germany are being watched closely.

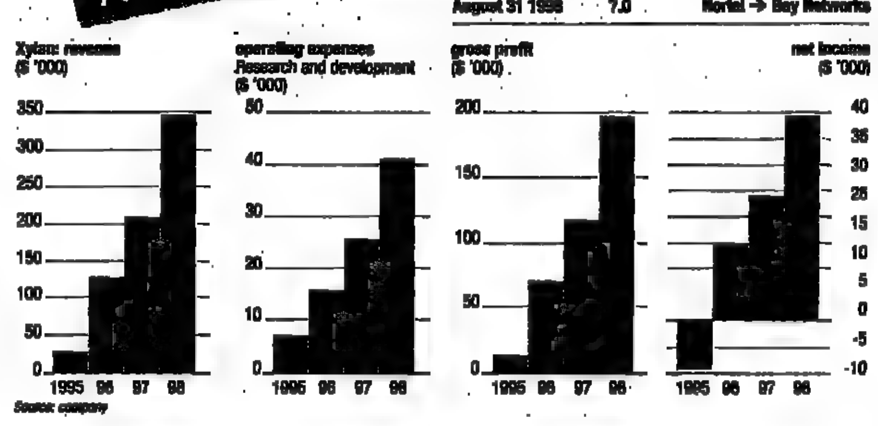
"This deal shows that convergence is finally happening, at least from the supplier side," said Colin Corrill, an analyst with Romtec. "The thing that focuses all the traditional voice companies is the internet."

Given the pace of change, other industry marriages are likely. Rather like a game of musical chairs, no-one wants to be left without a seat when the music stops.

Marriage of convenience

Recent deals in the sector

Date	Deal ($bn)	Companies
March 2 1999	2.0	Alcatel → Xylan
March 1 1999	2.1	GEC → Reltec
January 13 1999	19.3	Lucent → Ascend
August 31 1998	7.0	Nortel → Bay Networks



Source: company

NEWS DIGEST

PAY TELEVISION

BSkyB merger talks hit trouble over control

Tensions between Canal Plus and British Sky Broadcasting, the two European pay television companies that are negotiating a merger, emerged yesterday as Canal Plus said that it was seeking clear management control. Pierre Lescure, chairman and chief executive of Canal Plus, told the French newspaper Libération that management of the proposed merged group was "obviously the tough point and is not negotiable. We will have the leadership, or there will be no accord."

The companies have discussed having joint chief executives, but BSkyB would prefer Mark Booth, its chief executive, to take the same role in a merger, with Mr Lescure becoming executive chairman. Mr Lescure said a merger could gain European regulatory approval, although many analysts are sceptical. He said he expected the European Commission to insist that other pay television operators had access to programmes. **John Gapper**

PHARMACEUTICALS

Drug ruling hurts Ares-Serono

Shares of Swiss biotech company Ares-Serono plunged yesterday after the US Food and Drug Administration delayed approval for its potentially blockbuster drug Rebif, which treats multiple sclerosis. The FDA upheld "orphan" drug protection for two rival products and asked Ares-Serono for more information about clinical trials for Rebif. Ares-Serono shares tumbled 13.6 per cent before recovering slightly. So-called orphan drugs for rare diseases get seven years of exclusive US marketing rights to encourage companies to invest in developing medicines to treat such ailments. It is unusual for two drugs to enjoy orphan status at the same time. Ares-Serono shares closed at SFr2,190, down SFr265, or 10.8 per cent, but off a low of SFr2,120. **Reuters, Zurich**

SHARE DEALING

Tradepoint in Switzerland

Tradepoint, the UK exchange that is a low-cost rival to the UK stock exchange, is expanding into Switzerland, the company said. The Swiss Federal Banking Commission has authorised the Tradepoint Stock Exchange to be used by institutional investors and broker dealers in Switzerland to trade UK equities. The three-year-old Tradepoint has 88 members and a very low-cost trading system. However, it is still not big enough to attract most investors and accounts for less than 1 per cent of UK equity trading volume. To broaden its appeal it has been expanding its services to banks and investors outside the UK, which are interested in trading in UK equities. Nic Stuchfield, Tradepoint chief executive, described the Swiss permission as "another significant step" in broadening Tradepoint's market reach. **William Hall, Zurich**

STEEL INDUSTRY

Usinor in talks with Ispat

French steel company Usinor said yesterday it had signed a memorandum of understanding to negotiate exclusively with Ispat International with a view to sell Unimetal, Trefleurope and SMR and their related units. The French company said last year it was putting a large part of its speciality steels division up for sale to focus on its flat carbon steel and stainless activities. Usinor said both parties intend to close the deal before May 31, subject to completion of final due diligence and other regulatory approvals. **David Owen, Paris and agencies**

Sidanco restructuring move suffers setback

By Andrew Jack in Moscow

BP Amoco and a consortium of western bankers were yesterday strongly rebuffed in their efforts to restructure the insolvent Russian oil group Sidanco, when a Moscow court overturned their choice of administrator.

The bankruptcy court refused to endorse the appointment of a partner from Arthur Andersen, the accountancy firm, to help salvage Sidanco, even though the nomination was endorsed by the overwhelming majority of the group's creditors.

The move represents a powerful new blow to minority shareholders, foreign investors and creditors in Russian companies that are struggling to obtain a fair deal under the provisions of the country's recently introduced bankruptcy code.

Howard Chase, representative of BP Amoco in Moscow which owns 10 per cent of Sidanco, said: "This is not a good day for foreign investors in Russia. The extent of the disregard for the interests of creditors is quite breathtaking."

He indicated that the decision also did not respect the "spirit" of discussions on the topic held at the Davos summit in January between Yevgeny Primakov, the Russian prime minister, and John Browne, head of BP Amoco.

The holding company of Sidanco, which owes creditors an estimated $470m, was formally driven into bankruptcy in January by a petition from Beta-Eko, an obscure creditor that is widely believed to be linked to Interros, the group in which Vladimir Potanin, the powerful business oligarch, is a leading shareholder.

The Russian government, which is claiming $20m in taxes from Sidanco subsidiaries, opposed the bankruptcy, but BP Amoco and the vast majority of creditors supported it.

They resolved at a meeting last month to replace Sergei Kitin, an insolvency practitioner appointed at the recommendation of Mr Potanin, with Sergei Sereda, head of corporate restructuring at Arthur Andersen.

However, Mr Chase said that Mr Kitin had successfully petitioned the court yesterday to have himself reappointed, arguing that the meeting at which he was removed had not respected the time to register all creditors – even though Mr Kitin had run the meeting.

The court will meet again on May 18, but Mr Chase said he and other creditors were likely to appeal against the ruling.

Credit Suisse to offer rivals' funds on the net

By William Hall in Zurich

Credit Suisse, Switzerland's second biggest bank, yesterday broke ranks with rival institutions and announced plans to sell more than 500 of its competitors' investment funds via the internet.

Credit Suisse Private Banking has launched Fund Lab, a comprehensive investment database which will offer customers the chance to measure the performance of various funds via interactive software on the internet.

Users will be able to call up information on products offered by a wide range of fund management companies. They will be able to measure the performance of Credit Suisse's own funds against those of rival fund management companies.

Switzerland is the world's biggest offshore private banking centre and in the past Swiss banks have grown rich by selling their own funds to their captive private banking clients.

Credit Suisse, for example, has more than 100 funds of its own. However, information on these will now be offered to Credit Suisse clients in exactly the same way as information on more than 500 other investment funds.

Credit Suisse's decision will put pressure on UBS, the world's biggest private bank, to follow suit.

Credit Suisse said yesterday it had offered to list UBS's funds but the latter had declined. Nevertheless, the move is a clear sign that competition in private banking, far and away the most profitable business for Swiss banks, is increasing rapidly.

In the past the prime motive of many customers leaving their money in Swiss banks was preservation of capital. However, there is increasing pressure on Swiss banks to provide investment funds which match the performance of competing products from other European fund managers.

Credit Suisse said that its new service would result in "unprecedented transparency" which would benefit both investors and the fund market as a whole.

Oswald Grübel, chief executive of Credit Suisse Private Banking, said that provided Credit Suisse sold more funds as a result of the initiative he did not see it damaging the profitability of Credit Suisse's own fund management business.

Mr Grübel said that Credit Suisse had introduced the new service because an increasing number of clients were requesting this kind of information, and because web technology has opened up new opportunities which could not be exploited by conventional means.

Asia crisis takes toll on German companies

Latest available quarterly data from the Federal Statistics Office indicate a slump in sales to Russia and Japan

By Tony Barber in Frankfurt

At last, the pain is being felt in the middleweight companies that are the mainstay of Europe's largest economy.

Yesterday, the German stock market had to absorb more bad news after SGL Carbon, the world's leading carbon and graphite products group, said it would not pay a 1998 dividend, partly because of restructuring costs and the impact of the Asian economic crisis.

Although SGL Carbon's net loss of DM264m (€135m, $148m) last year was caused partly by legal costs in a US antitrust case, the group's results reflected a broader trend among German companies of lower sales and poor earnings prospects related to the slowdown in export markets and higher costs at home.

According to the Federal Statistics Office in Wiesbaden, German exports fell last December to DM75.6bn, from DM82.5bn in November. Exports to the US and the European Union have held up, but from July to September 1998, the latest quarterly figures available, sales to Japan slumped by 12 per cent and Russian sales were down by 26.6 per cent.

Russia accounts for less than 2 per cent of German exports, but its virtual financial collapse in August had a severe impact on some companies, partly because it forced them to turn to other markets and lower their prices.

For example, Tarkett-Sommer, Europe's largest manufacturer of resilient vinyl and laminated wood flooring, reported a 2 per cent drop in 1998 sales to DM2.87bn and a fall in profits to between DM165m and DM170m, against DM177m in 1997.

SGL Carbon blamed an 8.8 per cent fall in its pro forma operating results last year from DM376m to DM343m on "the negative impact of the Asian crisis and the strong decline of electric steel production during the fourth quarter". Company analysts identified weak demand from the semiconductor industry as a particular problem.

One of Europe's largest construction groups, Hochtief, was unhappy about trends abroad. A 15 per cent fall in foreign orders to DM5.1bn, attributed by Hochtief to the troubles in Asia, Brazil and Russia, took the edge off an 8.7 per cent increase in domestic orders to DM7.25bn.

Thyssen, the industrial group, suffered a 10 per cent drop in its share price on Monday after it disclosed that incoming orders had fallen by 19 per cent and sales by 10 per cent in the final four months of 1998.

The euro's weakness against the dollar this year could stimulate German exports, but this will not necessarily translate into higher profits.

Indeed, many analysts predict that earnings in the top 100 listed German companies will fall, partly because of the substantial rise in real wages that trade unions have extracted from employers in the past two weeks.

Adrian Phillips, an analyst at Dresdner Kleinwort Benson in London, expects that operating profits at quoted German industrial companies will drop 21 per cent this year, after a 21 per cent rise in 1998. This implies a 4 per cent drop on 1997 levels.

"We should not be lulled into a false sense of security by the flattening out of the downtrend in economic growth forecasts," he says.

Aggregate data for DAX100 manufacturing companies*

(€bn)	1995	96	97	98E	99E
Total sales	417.4	436.4	491.7	530.0	535.0
Change (%)	8.2	4.5	12.7	7.8	0.9
Gross profit	188.7	197.9	223.6	241.2	240.2
Change (%)	8.1	4.7	13.2	7.9	-0.4
Total operating profit	13.9	18.1	24.0	29.1	23.0
Change (%)	27.8	30.0	32.9	21.1	-21.0
Operating margin (%)	3.3	4.1	4.9	5.5	4.3

Source: Dresdner Kleinwort Benson

* Excludes BASF & Siemens inter alia, who do not provide cost of materials data

JAPANESE RETAILERS STORES SEEK HELP AS RECESSION CONTINUES TO BITE

Daiei asks JDB for Y30bn loan

By Naoko Nakamae in Tokyo

Daiei, Japan's largest supermarket operator, has asked the Japan Development Bank for Y30bn ($251.2m) in loans by the end of March, it emerged yesterday.

Nagasakiya, an apparel chain store, also announced that it planned to ask the JDB for several billion yen in loans to meet corporate bond redemptions. And Seibu, a department store that is part of the Seiyu group, said yesterday that it was "consulting with the JDB" on a loan for an undisclosed amount.

The announcements highlight the extent to which Japanese retailers have been hit by the worst recession in Japan's post-war history.

Daiei has been particularly hurt, as it has to bear the effects of its over-extension during the bubble era. With liabilities of about Y2,600bn, the company is understood to be finding it increasingly difficult to borrow from its main banks, and has been forced to approach the JDB – often considered a de facto lender of last resort for ailing Japanese companies.

Daiei said the JDB loan would not be used to meet corporate bond redemptions, but would be used for capital investments. It has some Y2.5bn of redemptions due in August and a further Y30bn next February, but "these have more or less been taken care of", said the company.

Yesterday, it also announced it would be raising a further Y12.8bn through a private offering. It will be issuing a "convertible bond" with an option to convert into shares in Lawson, a convenience store operator, after it is listed next autumn.

These bonds are "basically an advanced listing of Lawson," said Masahiro Matsuoka, retail analyst at Warburg Dillon Read in Tokyo. But he added these bonds were likely to attract buyers, since Lawson's core retail division was quite healthy.

"It depends whether or not they decide to strip out Lawson's (Daiei-related) bad debt," he said. "Without it, Lawson's market capitalisation could be as much as Y1,000bn – but otherwise, my estimate is that it would be closer to Y500bn."

Daiei, whose long-time president, Isao Nakauchi, resigned earlier in the year, has been struggling. The company has started to implement a financial restructuring programme that includes cutting its interest-bearing debt by Y1,000bn over the next five years. It is also trying to sell some assets, including its shopping complex in Hawaii.

Sony updates console

Japanese group pins its hopes and future computer games on a new powerful chip

By Paul Abrahams in Tokyo

Sony, the Japanese electronics group, yesterday unveiled its second-generation PlayStation games console, based on a new high-powered, special purpose central processor developed and manufactured by Toshiba.

Sony believes the new 128-bit chip will prolong the life of dedicated games consoles. Many industry experts had foreseen their gradual demise as general purpose chip processors, such as Intel's Pentium series, became more powerful. But the new Toshiba chip means that the quality of images on PlayStation will continue to be considerably higher than those possible on general purpose machines.

Nobuyuki Idei, Sony president, said PlayStation II would become one of the most important pillars for Sony and "a major challenge to the dominance of Intel-Microsoft on the computing industry".

Ken Kutaragi, chief operating officer of Sony Computer Entertainment, said the PlayStation II had a performance close to super-computers used for scientific research. Called the "emotion engine" because of its ability to render images so well, it would be three times as powerful as the Pentium III and 15 times more powerful than the Pentium II.

The new console would be launched in Japan late this year and in Europe and the US during the second half of next year. Mr Kutaragi said the exact timing would depend on the development of the games software by third party suppliers.

A successful launch of the PlayStation II is critical for the continued success of Sony. HSBC Securities, the investment bank, estimates the games operations will generate 10 per cent of Sony's sales in the year to March, and 22.5 per cent of operating profits. However, the company must now manage the migration from one generation of machines to another, without a collapse in sales of the old model before the new one is ready to launch.

The biggest danger for the company is if the hardware or software is not ready for the Christmas market. Sony will need to co-ordinate ramping up production of the new chip, which Mr Kutaragi admitted yesterday was still a prototype.

Sega, a big rival, botched the launch of its competitor 128-bit Dreamcast machine last December because of production problems.

Norio Ohga, chairman of Sony, unveils the new PlayStation Reuters

Sony invested about Y20bn on the Toshiba chip and an in-house graphic chip. The budget for developing the machine and software development tools was about $500m, Sony said.

Hongkong Telecom to expand IT role

By Louise Lucas in Hong Kong

Hongkong Telecom, the territory's dominant carrier, has paid T$157.25m (US$4.8m) for an 85 per cent stake in FIC Network Service, a Taiwanese internet service provider, and announced plans to pursue similar acquisitions to build its high technology portfolio.

The company, which is facing severe competition on its former monopoly telecoms businesses, is seeking to carve a niche for itself and Hong Kong to develop the territory into an internet hub.

The Hong Kong government has also declared such ambitions, and is one of Hongkong Telecom's biggest shareholders after Cable and Wireless of the UK.

Hongkong Telecom said it would extend its broadband network coverage to at least 80 per cent of the territory's households by next year, and would invest a further HK$500m (US$64.5m) in its broadband network this year.

The push towards an internet and IT development is being made by a number of Hong Kong's neighbours, including Singapore.

Linus Cheung, chief executive of Hongkong Telecom, said: "In this new era, whether Hong Kong can maintain its competitive edge as an international metropolis and become the region's first revitalised city depends very much on Hong Kong's determination to ride on this new tide of internet and e-commerce."

NEWS DIGEST

PAPER MAKING

Oji Paper warns on profit after prices collapse

Oji Paper, Japan's largest paper maker, yesterday issued a profits warning and forecast its first net loss at the parent level in post-war history. It lowered projected consolidated sales from Y1,280bn to Y1,240bn ($10.4bn) and reduced estimated pre-tax profit excluding exceptionals from Y17bn to Y200m. The group also said it would post a net loss of Y9.6bn rather than a net profit of Y2bn as previously forecast. At the parent level, Oji Paper revised down net income from Y8bn to a loss of Y32bn.

The company attributed the losses to tough business conditions including a collapse in demand and prices, and appraisal losses on shareholdings. Oji Paper also suffered from losses at Howe Sound Pulp and Paper, its Canadian joint venture, and Kanzaki USA, its US subsidiary. The company announced a restructuring plan to cut 2,000 jobs from the current 26,169 over three years. The stock closed down Y8 to Y570. **Alexandra Nusbaum, Tokyo**

AUSTRALIAN CONGLOMERATE

Southcorp boosted by red wine

Southcorp, the Australian wine, packaging and appliance group, said increased production of premium red wine from a high-volume 1996 vintage would solve shortages and boost sales and earnings in the year to June. The company said net profit before extraordinary items in the six months to December rose 14 per cent to A$60m (US$49.5m), helped by a 6.6 per cent increase in sales to A$1.4bn.

However, the company took a net extraordinary charge of A$47.9m on restructuring and consolidation of its water heater and packaging units, as well as a net abnormal loss of A$85.6m on the proposed sale of its white goods business to Email, an Australian appliance maker. The shake-up was welcomed by analysts who forecast a strong second-half profit including annual profit growth of more than 20 per cent from wine sales.

Graeme Kraehe, chief executive, said Southcorp was meeting only about a third of demand for its top red wines and was in the second year of a A$145m investment programme, which would double its premium red wine volume over five years. Sales and earnings for the packaging group in the second half would improve on seasonal demand in the food and beverage markets. There were also signs that Asian markets were slowly improving, he said. However, Asian demand for packaging was still weak and Southcorp was repositioning the division towards plastics. **Gwen Robinson, Sydney**

Daiwa expects deeper losses

Daiwa Bank said yesterday it expected larger losses for the year to March than it had previously forecast, citing accelerated write-offs of problem loans, AP-DJ reports from Tokyo.

The Japanese commercial bank said it would write off a total of Y363bn ($3.04bn) in problem loans during the fiscal year. It had previously said it would write off Y270.5bn.

The increase comes after the government imposed stricter reserve requirements against problem loans at banks and tightened its monitoring of their balance sheets earlier this year.

Daiwa will also apply for Y408bn in public funds under a government recapitalisation scheme.

It plans to issue preferred shares in exchange for the funds.

The bank has already announced plans to raise Y52.2bn of new shares in a third party allocation on March 12.

The bank said the new fund injections would bring its capital adequacy ratio to about 13 per cent, compared with 10.38 per cent in September.

Daiwa now expects a group net loss of Y160bn for the year, compared with a previous forecast loss of Y92bn.

It also expects a parent pre-tax loss of Y263bn and a net loss of Y120bn, compared with a previous forecast pre-tax loss of Y180bn and a net loss of Y90bn.

Daiwa said it would implement a programme of restructuring. It said it would reduce the number of directors to 15 by March 2003, from an expected 26 this March.

It will cut staff to 6,300 by March 2003, compared with an expected 7,640 this March.

The bank also intends to reduce the number of domestic branches to 150 by March 2003, compared with an expected 170 this March.

Daiwa has already announced plans to withdraw completely from overseas operations.

It plans to sell its head office building in Osaka for several tens of billion yen in a sale-and-leaseback to accelerate the write-off of bad loans, bank sources said.

It follows a similar deal by Bank of Tokyo-Mitsubishi last week.

The building will be sold to a Daiwa Bank group company or an affiliate of its close business partners, but a final decision has not yet been made.

ASX exceeds profit forecast

By Gwen Robinson in Sydney

The Australian Stock Exchange, the world's first stock market to demutualise and list on its own boards, said yesterday that record trading levels and the market's strength in the second half of 1998 helped nearly double interim net profit from the prospectus forecast.

Net profit in the six months to December reached A$23.4m (US$14.5m), including an extraordinary gain of A$7m related to future income tax benefits.

The result, the first since ASX listed last October, highlighted the company's status as the strongest performing stock on its own boards and the buoyancy of the Australian market.

ASX shares have soared nearly 220 per cent since the company launched on the stock market at A$4.10, against an increase of just 17 per cent in the exchange's benchmark All Ordinaries index. Yesterday, ASX shares rose 7 cents to A$13.50.

The gain also reflected the windfall profit for the exchange's original 606 members, who were each issued 166,000 shares ahead of the compliance listing.

Richard Humphry, ASX managing director, said if current levels of market activity continued, ASX would report an even higher second-half profit to sharply exceed prospectus forecasts of A$17.8m net operating profit for the year to June.

Trading volumes on the exchange – Asia's second largest after Tokyo – were 19 per cent above prospectus forecasts in the period.

Analysts said the result was in line with expectations, but that the full-year result would depend on factors including domestic economic conditions and the outcome of the exchange's expansion plans.

ASX executives are in talks with the Sydney Futures Exchange (SFE) about a proposed merger between the two. Mr Humphry said the outcome would depend on regulatory approvals and the support of SFE members, but SFE members could be voting on the proposal by June.

ASX would also start "more detailed discussions" this month with the US-based Nasdaq exchange, which operates the high-technology stock index. Nasdaq and ASX were considering active co-operation, including proposals to access each other's screens, enabling companies the benefit of international exposure without the need to list elsewhere.

Shin Corp cuts loss to Bt1.09bn

By William Barnes in Bangkok

Shin Corporation, formerly Shinawatra Computer, said it trimmed its losses in 1998 to Bt1.09bn ($29.2m), compared with Bt5.64bn the year before.

Analysts said yesterday's result confirmed their view that prospects for the ongoing restructuring looked good.

"This is a no-pain, no-gain scenario," said Andy Chan at ING Barings.

The company probably took a heavy hit in the last quarter of about Bt4bn to cover the obligations of struggling overseas affiliates, analysts said.

Shinawatra International, with its low-performing interests in Cambodia, Laos and the Philippines, is up for sale. A stake in local cable TV operator UBC was sold earlier this year.

Shin said the stronger baht had reduced its debt servicing costs and provided foreign exchange gains of Bt317m. Some Bt1.6bn was lost on the foreign exchange side in 1997, the year the baht was floated.

The cellphone associate, Advanced Information Services, earlier posted a 17.5 per cent increase in 1998 profits to Bt2.96bn.

Shin's stake in the mobile operator is being reduced to 40 per cent at a time when the economic slowdown has cut sharply into its business.

AIS did not pay a dividend despite an Bt8bn injection from the active new partner, Singapore Telecom.

Costs are down but so is cash flow.

Nevertheless analysts reckon it may beat its arch-rival Total Access Communications in a current promotions battle.

TAC earlier reported a Bt9.032bn profit for 1998, after a Bt19.73bn loss the year before. The company has cash flow problems but is paying its debt and is expected to be a beneficiary of impending telecommunications reform.

TAC's parent UCOM – not currently generating cash flow – was recently forced to give creditors 42 per cent of its equity, after debenture conversions, leaving it with debts of about $450m.

AUTOMOTIVE INDUSTRY ACTING HEAD SAYS SPLIT IS JUST ONE OPTION BEING CONSIDERED

TRW chief denies sell-off has been planned

By Nikki Tait in Detroit

Jim Remick, acting head of TRW's automotive division, said yesterday that he had no knowledge of any plans by the Cleveland-based company to sell off its automotive division, which is currently being expanded by the purchase of the UK's LucasVarity. The deal makes TRW the second-largest independent auto-parts supplier, with annual sales of around $13bn.

Mr Remick, speaking at the Society of Automotive Engineers' conference in Detroit, conceded that the notion of splitting the group into separate entities based around the automotive and space/defence interests had not been abandoned, but downplayed any early action. The idea was first mooted last year, before the LucasVarity deal surfaced.

"It's a consideration among a number of considerations," said Mr Remick, "but there are no immediate plans."

Mr Remick also suggested that any disposal of LucasVarity assets would be some months away. He said no decision had been taken yet, and that it would probably take three to six months to review the business once the transaction was finalised. The LucasVarity deal is expected to close early in the second quarter.

The TRW executive's comments came as the company announced that it was setting up a new modular manufacturing facility in Toledo, Ohio, to supply the city's DaimlerChrysler Jeep plant.

Modular assembly – where the main supplier co-ordinates assembly of major systems or parts of the vehicle, leaving the car or truckmaker with the simplified task of bolting together the final parts – is a growing trend in the automotive industry, and is designed to improve manufacturing efficiency. TRW already operates a number of modular facilities supplying original equipment manufacturers in the UK and Mexico.

Some questions have been raised about the extent to which modular assembly diminishes the OEM's control over the production process, but Mr Remick said yesterday he saw few barriers to the approach.

Under the Jeep agreement the new facility will supply chassis and suspension modules, while TRW will also co-ordinate steering system responsibility. Its new plant will be 10 miles away from the DaimlerChrysler assembly facility and some TRW employees will actually be based within DaimlerChrysler operations.

TRW expects to move into its new plant early next year. DaimlerChrysler has already said it will produce Jeep sports utility vehicles, for worldwide sale, from Toledo, beginning in 2001.

Handheld satellite sector prepares for a crash-landing

Analysts warn Iridium may breach banking covenants, writes **Christopher Price**

The handheld mobile satellite telecommunications sector fell to earth with a crash this week with the news that Iridium may *breach its banking covenants* just four months after launch.

The Nasdaq-listed company blamed disappointing revenues on technical problems and marketing difficulties with the service, the first to enable users to make or receive calls from anywhere in the world using a standard-size cellular phone.

Concerns over Iridium's poor start – and the possibility of rescheduling its debt – hit the company's shares and those of rival operators, *Globalstar and ICO Global* Communications, which are due to launch services over the next 18 months.

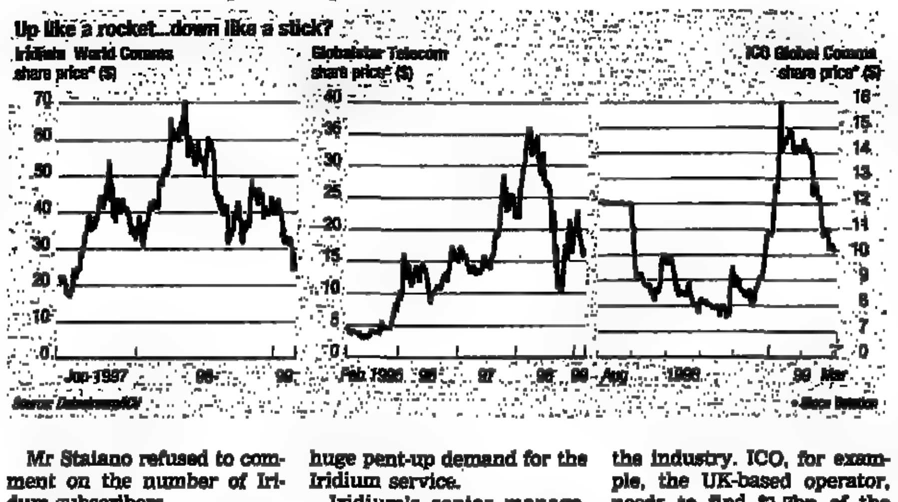
The questions now weighing on investors and analysts are whether Iridium, which spent $5bn on its system, can recover and whether its problems are fundamental to the sector.

After disclosing the company's difficulties, Ed Staiano, Iridium's deputy chairman, said shipments were delayed by software glitches in the $3,000 Iridium *phones being manufactured* by Kyocera, the Japanese telecoms group. Although these had been resolved, it left Motorola, the US electronics group and Iridium's largest shareholder, to shoulder the supply burden.

Mr Staiano believed lacklustre support from Iridium's service partners contributed to the disappointing start.

The Iridium business model is to sign up terrestial cellular operators in various countries. They then use the Iridium system for routing *calls outside their network*, especially those not covered by another terrestial network.

However, Mr Staiano said some of Iridium's 200 service partners had been lukewarm towards the service. He said some did not understand the concept while others failed to undertake sufficient marketing.



Mr Staiano refused to comment on the number of Iridium subscribers.

Analysts put the figure at around 13,000, about half the figure Iridium was forecasting it would have by the end of the first quarter and which it needs to hit in order to stay within its covenant agreement. Analysts believe the group will be well short of its estimated $30m revenue by the end of March.

Mr Staiano is far from downbeat. He acknowledges that the company is six to nine months behind its targets, but he believes there is huge pent-up demand for the Iridium service.

Iridium's senior management has been reorganised and will target operators that need additional marketing support.

One service partner, which refused to be named, said yesterday: "Iridium has not got its act together. The system is not up to our standards and technically it is not robust enough. We still have significant questions over where we go with it from here."

The concerns are being raised at a crucial time for the industry. ICO, for example, the UK-based operator, needs to find $1.7bn of the total $4.7bn its system will cost.

Its share price will weigh heavily on investor confidence – and the likely valuation of any investment.

Then there is the issue of the satellite lifespan. Iridium's 66 low earth-orbiting satellites have a lifespan of between five and seven years.

The Washington-based group is likely to begin building, launching and funding the multi-billion dollar replacements early in the new millennium.

John Coates, satellite analyst with Salomon Smith Barney in New York, still rates the sector a "buy", arguing that "the fundamental business case remains" *for the handheld satellite* phone market. He said: "Iridium's delays are just short-term problems that are solvable."

However, he has slashed his end of year subscriber figures from 385,000 to 80,000, and pushed back the break-even date for the group from the end of this year to the middle of 2000.

Most other analysts also remain positive over the long term, believing that the massive demand for mobile phones will drive usage of *the satellite systems.*

They will be hoping Iridium's bankers take an equally positive view. The indications are that they will, particularly given Motorola's backing for the venture. But Iridium will be under no illusion that it must start to deliver subscribers and revenues sooner rather than later.

NEWS DIGEST

AUCTIONEERS

Sotheby's gains but fails to overtake Christie's

Sotheby's, the New York-based fine art auction house saw total revenues rise from $381.8m to $447.1m in 1998. Net income was up from $48m to $54.3m, but a non-recurring charge related to the rebuilding of its York Avenue headquarters reduced this to $45m.

But what will upset the company in its battle with arch rival Christie's is that it failed to regain the position it held for 40 years until 1997 as the world's leading saleroom.

Christie's, a private company since its acquisition by French retailer François Pinault last year, recorded auction sales in 1998 of $1.965bn, although this was 3 per cent lower than in 1987.

Sotheby's worldwide auction sales increased from $1.84bn to $1.9bn. All the growth was concentrated in the US, where sales rose by 17 per cent to $1.074bn. European sales fell by 3 per cent, to $803.9m, and recession-hit Asia registered a 36 per cent fall to $61.4m. Christie's sales were down 9 per cent in the US to $1,043m, but in Europe it boosted turnover by 7 per cent to $900m.

Sotheby's announced record contributions from its financial services and retail estate operations. It has also acquired a large estate to sell in the middle of the year; the collection of the late Jock and Betsey Whitney should raise $80m, with two paintings by Cézanne and Seurat each estimated to fetch up to $35m. Christie's snatched market lead in 1997 because it won the Ganz collection of modern art which it sold for $92.8m.

The biggest change to Sotheby's operations for many years takes place in July when it holds its first auctions on the internet. It plans to invest $25m in the initial development phase of the new facility and has signed exclusive deals with over 2,000 major dealers, who will supply antiques to be sold on the net at weekly auctions. The first big auction is of baseball memorabilia from the collection of Barry Halper, expected to raise more than $15m.

Another new service announced yesterday was Sotheby's Insurance Brokerage, linked to J.H. Marsh & McLennan, the largest insurance broker in the US. In future, anyone insuring their art collection through Sotheby's can also insure their homes, their yacht, their horses, and even their life. Christie's yesterday confirmed it would introduce online auctions later this year. It will also be opening its new American headquarters at the Rockefeller Centre and a new auction house in Paris. **Antony Thorncroft**

BANKING

Republic New York

Republic New York, the US bank, plans to close only its prime brokerage and derivatives market-making divisions. It has no intention to close its precious metals or foreign exchange market-making businesses, as may have been implied by an article published yesterday.

Scotiabank advances 11% to C$368m in first quarter

By Scott Morrison in Toronto

More loans and increased trading revenues enabled Canada's Bank of Nova Scotia to report an 11 per cent rise in first-quarter net income, matching analysts' expectations.

The bank yesterday reported earnings of C$368m (US$242m), or 69 cents a share, for the quarter ended January 31, compared with income of C$331m, or 63 cents, during the same period last year.

Corporate banking contributed C$197m to Scotiabank's first-quarter income, up from C$100m last year, while domestic retail and commercial banking added C$161m, little changed from last time's C$160m. Income from investment banking rose from C$65m to C$88m, while international banking made C$53m, up from C$37m.

The bank said net interest income and other revenue grew to a first-quarter record of C$2bn, up 18 per cent. Net interest income, interest revenues less interest expenses, was up at C$1.18bn, a 15 per cent increase driven by strong growth in most lines of business.

Loans and acceptances grew by 15 per cent year-on-year, while residential mortgages were up 9 per cent.

Investment banking revenues in the quarter rose 21 per cent, as trading revenues, particularly foreign exchange trading, more than offset a decline in underwriting fees. Investment securities gains were C$115m, an increase of 49 per cent over the first quarter last year.

Analysts applauded Scotiabank's broadly based performance, noting that the cost-conscious bank was able to weather market instability.

Scotiabank, the most international of Canada's banks, made 74 per cent of its earnings in Canada in the first quarter, up from 67 per cent a year ago.

"They are good clean results," said one analyst.

In his first public statement since the federal government late last year blocked four competitors from consummating two proposed mergers, Peter Godsoe, Scotiabank chairman, said yesterday that officials had made the right decision.

But he called on regulators to introduce a high degree of flexibility into the financial sector to enable banks to respond quickly to competitive developments.

Wal-Mart expands role in Cifra

By Andrea Mandel-Campbell in Mexico City

Jerónimo Arango Arias, the chairman of Cifra, Mexico's largest retailing conglomerate, stepped down this week, *signalling the end of an era* for the chain he founded nearly 50 years ago and the start of a new leadership under majority partner, US retailer Wal-Mart.

Mr Arango, 71, launched his empire with Vips, Mexico's most popular fast food restaurant chain, which now has more than 400 outlets. The unassuming businessman personally came up with recipes for the Vips menu and would often sit, anonymously, at one of his bars to eat.

Mr Arango will now move over to the board of Wal-Mart, where analysts expect he will advise the world's largest retailer on its expansion plans throughout Latin America and possibly Europe.

Wal-Mart bought a 55 per cent stake in Cifra for $2.1bn in 1997. In an indication of the larger role to be played by Wal-Mart, three top-level executives from its international division were appointed to the Cifra board as part of an executive reshuffling announced on Monday.

Wal-Mart president Rob Walton, son of the chain's founder Sam Walton, attended the board meeting in Mexico City in what analysts see as a sign that the retailing giant is very serious about Mexico.

"This is a signal that the future of the company now lies with Wal-Mart," said Francisco Chevez, retail analyst with Salomon Smith Barney in New York.

Cesareo Fernandez, a 33-year veteran of the conglomerate and former head of Suburbia, Cifra's chain of clothing department stores, replaces Mr Arango as Cifra chairman.

The announcements coincided with the release of less-than-spectacular fourth-quarter results for 1998. Gross margins dropped slightly on weak sales due to a slowdown in the group's expansion programme and continuing difficulties in merging the operations of the two separate retailers, said Cifra.

More importantly, Wal-Mart's 27 Supercenters have underperformed. Added to losses on the local peso currency exchange, net profits for the year fell 34 per cent.

Micron hit by fall in PC sales

By Roger Taylor in San Francisco

Shares in Micron Electronics, the computer maker, dropped 19 per cent yesterday to $11¾ after it warned of slowing sales of personal computers. Micron is now the third PC manufacturer to have been hit recently by weak sales.

Last week Compaq, the biggest computer manufacturer and headed by Eckhard Pfeiffer, warned some analysts that PC sales, especially to small and medium-sized businesses, were below those analysts' forecasts. Compaq shares have now dropped to $33 from a high of $51¼ last month.

Eckhard Pfeiffer, Compaq CEO AP

Last month slower-than-forecast revenue growth from Dell, another leading PC manufacturer, sent its share price tumbling from a high of $110 to $80.

Any weakness in PC sales will have a knock-on effect in other parts of the technology industry, such as software and internet companies, which rely on a growing PC market to drive their own sales.

However, some industry analysts are not yet convinced that there is a slowdown in the market. Dataquest, the research group, is sticking to its forecast of 14 per cent growth in the volume of PC sales for 1999. David Stremba of Dataquest said: "It is a little early to be speculating on the health of the industry. We often see changes month to month and I expect to see a pick-up again in March or April."

He said any recent market weakness could be blamed partly on the launch last month of the new Pentium III microprocessor from Intel. New Intel processors, which are used in most PCs, tend to cause a hiatus in computer sales while people wait for the new machines to reach the shops.

Micron yesterday listed Pentium III among the factors causing its problems. It said it expected second-quarter sales to be 6-9 per cent below last year.

However, much of the growth in PC sales recently has been in the low-price section of the market, which would be less affected by the new Intel chip.

PC prices are forecast to continue to fall this year, although they are expected to be more stable than last year. Steven Milunovich of Merrill Lynch said this week that he expected only 5 per cent sales growth in PCs this year and has downgraded his forecast on Compaq.

Several factors could be contributing to disrupted PC sales. The economic problems that have undermined demand from Asia are now spreading to Latin America with the devaluation of the Brazilian Real.

In the US, which has been driving sales growth, PC manufacturers are having to cope with more consumers buying direct from the manufacturer – a trend started by companies such as Dell and Gateway.

Other manufacturers, such as Compaq and IBM, are now experimenting with new distribution mechanisms but this can cause inventory problems.

Also, computer buyers have reacted to the threat of the millennium bomb by replacing old machines. This has brought forward planned purchases and boosted sales recently but is expected to be a drag on sales as 2000 approaches.

Minorco to sell Engelhard stake

By Victor Mallet in Johannesburg

Minorco, the offshore resources arm of South Africa's Anglo American conglomerate, announced yesterday that it had decided how to sell its 31.8 per cent stake in Engelhard, the US metals, catalysts and chemicals group, for about $868m.

Engelhard itself has agreed to buy 18m of Minorco's 46m Engelhard shares, while the remaining 28m will be sold through an underwritten public offering.

Engelhard will pay either $18.90 per share or the price received by Minorco in the offering minus the underwriting spread, whichever is the lower.

The US company will also buy up to 2m extra shares if they are available after the offering, and Minorco will pay Engelhard's costs.

Luxembourg-based Minorco is being taken over by Anglo American, which is moving its headquarters and primary stock exchange listing to London from Johannesburg.

The Engelhard disposal is the latest of several moves to simplify the group's structure in order to attract international investors ahead of the formation of Anglo American plc.

In December, Anglogold, the Anglo subsidiary which is the world's biggest gold mining company, bought Minorco's gold interests in North and South America for $550m in cash.

Minorco also wants to sell Terra Industries, its US fertiliser and agribusiness group.

Yesterday Minorco said negotiations on Terra were "still proceeding".

The Engelhard transactions are expected to be completed by mid-April, while AA plc's pre-listing statement should be issued by the end of that month.

Anglo now intends to list in London by the end of May, two months later than originally planned because of the complexity of the restructuring.

On Monday, Anglo announced it had sold its direct shareholding in South African Breweries, which is also moving to London, for £34.9m through a placing of shares by SAB, although it still holds an indirect stake through Bevcon.

● Anglogold yesterday revised down its expected gold production for the first quarter of this year to 52 tonnes from 55, although lower costs, reduced tax and the weaker rand would mean financial results similar to those in the previous quarter.

It said that the damage caused by a seismic event at Western Deep Levels in November was worse than previously thought, while the grade of ore mined at Elandsrand had declined.

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DIGEST

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Wal-Mart expands role in Cifra

14,000 staff, in 40 countries. But it's the thought that counts.

With an unrivalled professional network that spans the world, we're committed to thinking globally. What you can't tell from our size alone is that we also think differently. We don't deal in off-the-shelf solutions. Instead, you'll find more individuals means more individual thinking; more innovation. Quite simply, more intelligence.

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Gallaher hit by rise in smuggled cigarettes

By David Blackwell and Nicholas Timmins

A step change upwards in the number of cigarettes being smuggled into the country is reflected in the first increase in smoking for years, according to Gallaher Group, the UK's leading cigarette maker.

Peter Wilson, chairman and chief executive, said the group's market research showed that the proportion of UK adults smoking rose last year by a single percentage point to 23.3 per cent.

While the level of legitimate cigarette sales was continuing to fall, professional smugglers had taken the proportion of bootleg cigarettes up from 3 to 8 per cent of the total.

"It is an intriguing situation – smoking is on the increase, but the legitimate market is off 8 per cent," said Mr Wilson. Organised crime had replaced the individual making a bit of extra pocket money through bootlegging, and the government was losing up to £1.5bn ($2.4bn) in revenues.

Action on Smoking and Health conceded there might have been a rise in adult smoking "but that is not due to smuggling but to smoking having suddenly become fashionable among the young, in part thanks to some very sophisticated marketing by the likes of Gallaher".

The argument that smuggling was responsible was "a self serving fallacy aimed at getting the chancellor to cut tobacco taxes. It is completely implausible that the increase in consumption from lower prices in the illegal market, which is at most 10 per cent of the total, can have offset the decrease in consumption caused by higher prices in the 90 per cent of the market which is legal".

If the tobacco companies' wish for a £1 cut in the price of cigarettes was granted, 8,000 extra deaths a year would result.

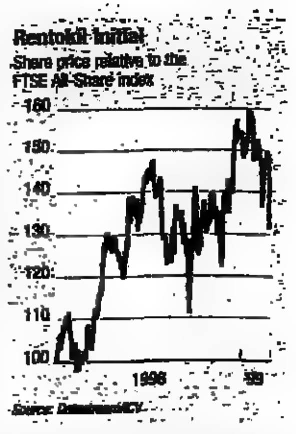
Mr Wilson argued that there was no reason why the level of bootlegging should not continue to rise. Consumers offered brands such as Benson & Hedges at £2.40 in pubs and clubs – compared with £3.64 duty paid – thought they were getting something for nothing. But cigarette smuggling was not a victimless crime – the victims were retailers and the UK tax payer.

The fall in Gallaher's total sales last year from £4.42bn to £4.26bn was exacerbated as the continued increases in duty led many smokers to trade down from its premium Benson & Hedges and Silk Cut brands which dominate the upper end of the market. While the group has built up its Mayfair and Sovereign low-price brands, its total UK market share again slipped fractionally, closing the year at 39 per cent.

However, international sales continued to rise, ending the year to December 31 at £237m excluding duty, representing a quarter of total sales by value. The latest figure would have been £11m higher at constant exchange rates. Total pre-tax profits fell from £337.2m to £318.6m mainly because of a rise in interest payments.

COMMENT

Rentokil Initial



There is something perverse about Rentokil Initial's obsession with earnings growth. Having missed its self-imposed 20 per cent target for the first time in 17 years, the business services group might have been forgiven for quietly stepping off the treadmill. After all, with average UK earnings rising at less than 5 per cent these days, the 18 per cent Rentokil served up looked toothsome rather than disappointing. In re-affirming the target then, Rentokil seems to have missed a trick. Investors have long suspected its earnings obsession has led to a business model good at boosting margins but less so at developing growth opportunities. Sales have now ground to a halt, lending credence to this. To be fair, Rentokil is stressing the objective of jump-starting the top line, which should be possible, given its strong brand name and relatively low shares in most of its markets. But to give investors comfort, it should be unambiguous about its priorities.

UK earnings

So the sad case of the UK's dodgy earnings statistics has drawn to a close. The series – suspended last October – was always known to be of poor quality. But it is only in reading the report commissioned by Gordon Brown, the Chancellor, that the full extent of its inadequacies can be seen. The salutary lesson is just how dangerous it is to rely too much on any one piece of data for decision making. It is almost frightening that monetary policy had been influenced at all by such a flawed indicator. In practice it had been regarded as one of the most important signs of inflationary pressure. The history of earnings growth has also been rewritten, but not to the extent that many expected – and feared. It is a miracle that the changes to the series were not greater. Fortunately, many large component changes have cancelled each other out. So earnings growth did rise strongly up to last spring and has since slowed down. As this new series does not materially change the view of the past, the Bank of England's monetary policy committee must be relieved. No corrective action is required and it remains on track to deliver the promised soft landing. When the MPC deliberates again on interest rates this week, it will have the evidence that earnings growth is falling. Another interest rate cut could be justified – if the committee believes the statistics.

Flowserve quits bid

By Michael Peel

Shares in the Weir Group fell almost 10 per cent yesterday, after Flowserve – the US maker of pumps, seals and valves – said it had aborted its attempt to acquire the Glasgow-based engineer. Weir last month rebuffed Flowserve's takeover approach.

The US group, which made an indicative bid of £600m ($966m), said Weir's price expectations made it impossible "to proceed prudently".

"It was very clear that Flowserve could not afford to pay what our shareholders considered a fair value for the business," Weir said. Its shares dropped 22¼p to 242¼p, giving the group a market capitalisation of £483m.

Flowserve is understood to be seeking alternative acquisitions to allow it to participate in the consolidation of the engineering sector.

NU sets aside $1.2bn to cover annuities

By Christopher Brown-Humes

Norwich Union, the life assurer, has set aside £750m ($1.21bn) to cover its exposure to guaranteed annuities after a doubling of its reserves last year.

It stressed yesterday the increase would not affect shareholders as the impact would be absorbed by the group's £27.5bn with-profits life fund.

Like other life groups, Norwich Union sold thousands of pension policies offering guaranteed annuities in the 1960s, '70s, and '80s when inflation and annuity rates were much higher than they are today.

Some experts believe these liabilities will cost the industry up to £10bn, although the exact outcome will depend on the trend in long-term interest rates and how policyholders choose to take their pensions at retirement.

The group yesterday announced an 11 per cent rise in operating profits to £716m for 1998, towards the top of expectations. Pre-tax profits were 8 per cent higher at £777m. It was the group's first year as a public company.

Richard Harvey, chief executive, said the group had struck a "sensible balance between volume and profit" in its core UK life business where operating profits rose 7 per cent to £486m.

He acknowledged new business growth at 8 per cent had not been "what I would have ideally liked", but said the priority had been defending margins.

Analysts highlighted a strong performance by the group's general insurance business, which accounts for 18 per cent of group profit. Profits from this business rose from £127m to £129m in a tough market.

The group joined other general insurers in predicting a hardening for household and motor insurance rates this year.

The group's international life business saw profits rise from £73m to £91m. Margins abroad are generally fatter and the group achieved good volume growth, said Mr Harvey. The company has just started operating in Poland.

Mr Harvey said the group remained keen to make acquisitions provided they added shareholder value.

Last year it paid £315m for London & Edinburgh and it cast its eyes over NPI before the mutual life office was eventually acquired by AMP of Australia.

Richard Harvey: 'a sensible balance' Sinead Lynch

Rentokil stalls on growth target

By Susanna Voyle

Rentokil Initial stumbled on its own growth targets yesterday as the business services group reported annual earnings per share up 18.4 per cent, against its 20 per cent target.

Sir Clive Thompson, the chief executive known in the City as Mr 20 per cent after 17 years of growth at or above that level, blamed the strength of sterling and the Asian economic downturn for missing his target.

The other problem area for the group has been North America, but Sir Clive said a focus on higher margin business was starting to have an effect.

Sir Clive said he was disappointed with the fall but remained focused on achieving 20 per cent growth.

However, analysts yesterday said they doubted the group could keep up that level of growth and said yesterday's results were disappointing because of the lack of turnover growth.

"The days of 20 per cent have definitely gone," said one. "The question now is whether it will be 15 per cent or 12 per cent over the next five years."

Sir Clive said he would continue to make small bolt-on acquisitions, and did not need the larger deals that some analysts said are essential for the growth target. However, the group had the financial fire power to make a big acquisition if it arose – and if not enough opportunities came its way it would consider returning funds to shareholders.

Turnover in the year to December 31 edged ahead to £1.9bn. Operating profit increased from £438.8m to £504.7m and pre-tax profit rose 17.6 per cent to £490.6m.

Sir Clive said turnover was down because the group had been shedding high-volume low margin contracts it inherited in the 1996 acquisition of BET.

Meanwhile in Asia, profits fell 24.3 per cent to £43.1m on turnover down 20.1 per cent to £137m. However, Sir Clive said he thought the situation in the region was stabilising.

Wembley stadium sale under threat

By Charles Pretzlik

The Football Association's £106m deal to buy Wembley stadium is under increasing threat from two rivals stalking its owner, Wembley.

SFX Entertainment, the US live entertainment promoter, is considering launching a takeover bid for the whole Wembley group, including the stadium. It is understood to be working with Lehman Brothers on a possible offer which would start at between 375p and 400p cash, valuing the group at up to £218m.

Meanwhile, Enic, the UK sports and entertainment group, indicated two weeks ago to the non-executive directors of Wembley that it could raise the cash element of its £229m bid made earlier this year by 50 per cent to 300p per share.

Both Enic and SFX have been encouraged to bid by three of Wembley's non-executive directors, Jarvis Astaire, Peter Mead and Roger Brooke. They are trying to block Wembley's decision to sell the stadium alone to the FA, which will be voted on by shareholders on March 11. They consider the price too low.

It is understood that in any new bid, Enic would maintain the total value of its offer at 412½p. This would give Wembley shareholders about 40 per cent of the combined group.

It is not thought that raising the cash offer to 300p would be enough to secure a recommendation from Wembley. Without the likelihood of Wembley board backing, Enic would not formally revise its offer. Wembley's executive directors have already dismissed Enic's earlier offer as insufficient.

The non-executives, who are being advised by Herbert Smith, the solicitors, declined to comment yesterday on offers from Enic and SFX.

He said he believes Wembley, which would have no role in the management of the stadium after the sale, would be forgoing up to some £60m of profits over the next three years by selling the stadium now.

RESULTS

		Turnover (£m)		Pre-tax profit (£m)		EPS (p)		Dividends: Current payment (p)	Date of payment	Corresponding dividend	Total for year	Total last year
Arriva	Yr to Dec 31	1,556	(1,421)	94.5	(101)	33.5	(38.1)	10.6	Apr 26	9.9	14.2	13.5
BPP	Yr to Dec 31	88.7	(80)	13.1	(9.04♠)	30.7	(17)	11.5	Apr 29	11	17.25	16
Britt Allcroft	6 mths to Dec 31	5.78	(5.94)	1.96	(1.21)	4.91†	(3.25)	0.8	Apr 23	0.7	-	2.1
Chieftain	Yr to Dec 31	12.4	(30.3)	1.06	(1.73)	8.5	(13.66)	2.9§	Apr 30	2.9	4.3	4.3
CRH €	Yr to Dec 31 ★	5,211	(4,234)	408.9♥	(321.5♥)	79.13	(63.79)	12.06	Mar 30	10.48	17.14	14.86
Druid	6 mths to Dec 31	27.8	(14.3)	4.04	(2.4)	12.06	(8.97)	1.6	Apr 23	1.25	-	3.05
Epwin	Yr to Dec 31	108	(90.3)	8.63	(8.06)	20.5	(18.2)	7	July 5	6.7	10.3	9.85
Fairview	Yr to Dec 31 ✣	187.5	(163.1)	37.9♠	(39.5)	13.9	(14.7)	2.75	May 21	-	2.75	-
Flomerics ɸ	Yr to Dec 31	6.91	(5.78)	0.384	(0.046)	10.1	(0.3)	3.3	May 5	3	3.3	3
Fennscan ɸ	6 mths to Jan 31	2.13	(2.73)	0.529	(0.68)	3.38	(4.46)	1.5	Apr 20	1.5	-	3
Gallaher	Yr to Dec 31	4,255	(4,415)	318.6	(337.2♥)	31.8	(35.2)	13.7	May 25	9.625	20.5	19.25
Hickson Intl	Yr to Dec 31 ★	227.2	(258.4)	0.2L♠	(14.7L♠)	0.29	(6.41L)	1	May 10	1	1.5	1
Jardine Lloyd T'son	Yr to Dec 31 ✣	232	(225.8)	61.9♥	(20.7♠)	22.2	(1.7)	7	May 17	5.5	12	10
Jermyn Inv Props	Yr to Dec 31	10.7	(7.02)	3.28	(1.66)	17.29†	(8.26)	4.3	May 24	3.5	7	6
Johnson Fry	Yr to Dec 31	19.4	(21.6)	1.2L♠	(0.27L♥)	8.1L	(4.5)	2	May 28	2	4	4
Mill'n Copthorne	Yr to Dec 31	221.9	(202.6)	80.4	(50.2)	30.8	(25.9)	6.9	Apr 28	5.8	10.2	8.6
Minmet ♣	Yr to Dec 31	-	(-)	0.877L	(0.097L)	0.34L	(0.05L)	-	-	-	-	-
[illegible]	6 mths to Dec 26	70.1	(69.5)	9.29♥	(9.85♥)	27.53	(29.97)	8	Apr 1	6	-	23.5
Norwich Union	Yr to Dec 31 ★✣	5,649□	(5,723□)	777	(722)	27.8	(25.2)	8.05	June 18	7.75	12.8	7.75
Optoplast ɸ	6 mths to Dec 31	3.96	(3.79)	0.227	(0.55)	1.8	(5.4)	0.5	Mar 31	nil	-	1.5
Prime People	Yr to Dec 31	4.24	(3.88)	1.32♥	(0.344)	3.31	(0.94)	-	-	-	-	-
PSD	Yr to Dec 31	47.3	(32.3)	14♥	(9.13)	40.8	(26)	9	Apr 14	6	12.6	8.4
Rentokil Initial	Yr to Dec 31	2,899	(2,875)	490.6	(417)	12.22	(10.32)	2.53	May 14	2.17	3.7	3.06
RJB Mining	Yr to Dec 31 ★	832.5	(1,125)	40.1♠	(171.1)	39.6	(78.3)	4	May 24	10	7	20
United Inds	Yr to Jan 2	59	(37.9)	0.25♠	(3.65♠)	1.35	(6.93)	1.95	July 5	1.75	2.9	2.8
Union	Yr to Dec 31 ★	-	(-)	1.43L♠	(2.58L♠)	6.5L	(10.2L)	nil	-	nil	nil	nil

Investment Trusts		NAV (p)		Attributable Earnings (£m)		EPS (p)		Current payment (p)	Date of payment	Corresponding dividend	Total for year	Total last year
European Assets ‡‡	Yr to Dec 31	17.77	(15.35)	2.74	(3.62)	11	(15)	7	June 27	8	15	18
Law Debenture	Yr to Dec 31	1,071	(999)	8.56	(8.35)	36.74	(35.96)	19.25⁂	Apr 2	17.5	31	28.5
M Castle High Inc	6½ mths to Jan 31	84.4	(-)	0.888	(-)	8.55	(-)	2.15‡	Apr 9	-	-	-
Mercury Grosvenor	Yr to Dec 31	257.8	(257.6)	0.88	(1.69)	2.82	(6.51)	4.95	Apr 30	4.95	4.95	4.95
Smaller Companies	Yr to Dec 31	164.39	(163.14)	0.857	(1.37)	2.86	(2.79)	0.5	Apr 30	1.9	1.9	3.3

Earnings shown basic. Dividends shown net. Figures in brackets are for corresponding period. ♠After exceptional charge. ♥After exceptional credit. †On increased capital. §Special of 14p also proposed. €Euros. ★Comparatives restated. ✣Comparatives pro forma. ɸAim stock. ♣Irish currency. □Gross premiums. ‡‡Dutch currency. ⁂Includes foreign income dividend element. ‡Second interim; makes 3.45p to date.

EQUITIES

Europe edges up on back of Wall Street

EUROPEAN OVERVIEW

By Florian Gimbel

European shares closed marginally higher yesterday, largely on the back of small gains on Wall Street.

Markets received an additional boost from the rallying US Treasury market as falling long bond yields allayed fears of higher US interest rates. But most equity investors took a wait-and-see approach ahead of any European Central Bank move on interest rates this week, leaving volumes thin throughout the euro-zone.

Despite its rebound from Monday's record low, the euro continued to reflect the growing divergence between the US and the euro-zone economies. The weaker euro, however, has failed to boost Europe's export sectors. "Cyclical stocks have not benefitted from a weaker euro," said one analyst.

One of yesterday's winners was the telecoms sector, largely because of the takeover battle between Olivetti and Telecom Italia in Italy. The pharmaceutical sector was also boosted, with Germany's Bayer posting solid gains.

On a general note, the euro appeared to have significantly buoyed stock market activity in the euro-zone, according to a report by BT Alex Brown. In January, total European volumes soared 40.6 per cent on the month, suggesting the single currency was well received by equity investors.

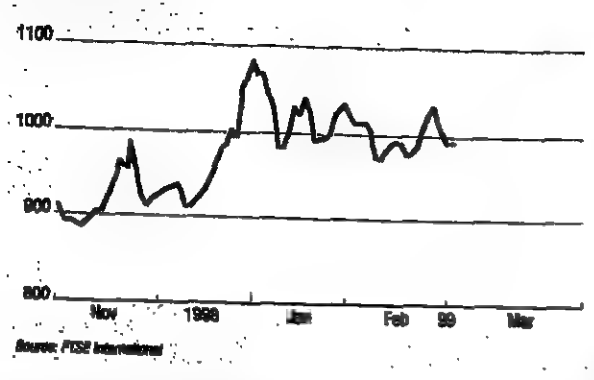
European domestic volumes, calculated in euros, also rose substantially, moving up 32.1 per cent on the month and 27.2 per cent year-on-year. The Netherlands posted a particularly strong performance, with domestic volumes rising 89 per cent to a record level.

But the figures on mutual fund flows showed that the euro failed to boost the overall level of equity investment. "Most of the fund flows were due to portfolio reshuffling, with little new money coming in," said James Cornish at BT Alex Brown.

The FTSE Eurotop 300 index rose 1.37 to 1,209.25, while the FTSE Eurotop 100 advanced 5.42 to 2,775.95. The FTSE Ebloc index of leading stocks in the euro-zone settled 1.30 lower at 991.72.

Bayer gained 4.95 per cent to €32.85 as investors chose to swap holdings out of Hoechst into Bayer. Hoechst shed 4.92 per cent to close at €39.20 following profit-taking.

FTSE Ebloc 100



Source: FTSE International

FTSE Actuaries Share Indices — European series

Produced in conjunction with the Faculty and Institute of Actuaries

Mar 02 National & Regional Markets	Euro Index	Day's %	change points	Yield gross %	xd adj ytd	Total retn (Euro) €
FTSE Eurotop 300	1209.25	+0.11	+1.37	2.22	2.39	1247.61
FTSE Eurotop 100	2775.95	+0.20	+5.42	2.20	7.66	997.82
FTSE Ebloc 100	991.72	+0.13	+1.30	2.08	0.74	1007.41
FTSE EuroMid	1190.87	-0.11	-1.30	2.79	1.58	1235.61
FTSE EuroMid Ebloc	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1208.30
FTSE EuroMid Ex UK	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1244.89

OTHER INDICES

For real-time FTSE Eurotop 300 index quotes call FT Cityline on 0906 843 5920. Calls are charged at 60p per minute at all times.

FTSE EUROTOP 300

CURRENCIES & MONEY

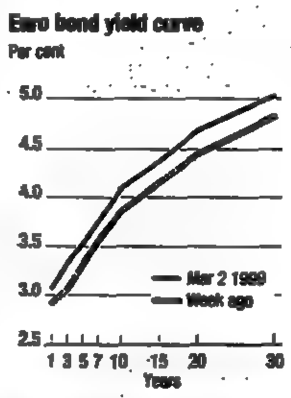
EURO SPOT FORWARD AGAINST THE EURO

BONDS

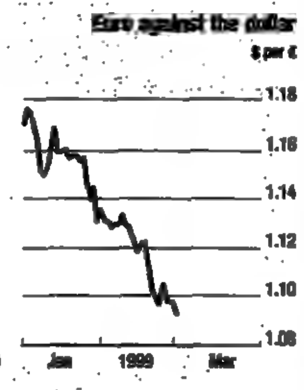
INTEREST RATE SWAPS

Mar 02	Euro-€ Bid	Euro-€ Ask	£ Stlg Bid	£ Stlg Ask	SwFr Bid	SwFr Ask
1 year	3.20	3.23	5.27	5.30	1.40	1.85
2 year	3.30	3.34	5.43	5.46	1.82	1.90
3 year	3.46	3.50	5.44	5.48	2.05	2.13
4 year	3.64	3.68	5.42	5.46	2.24	2.32
5 year	3.81	3.85	5.36	5.40	2.42	2.50
6 year	3.97	4.01	5.36	5.40	2.59	2.67
7 year	4.12	4.16	5.35	5.39	2.75	2.83

Euro bond yield curve



Euro against the dollar



Source: Interactive Data/FT Information

EURO-ZONE BONDS

Standard & Poor's ratings. Source: Interactive Data/FT Information.

MeritaNordbanken Group

The Annual General Meetings of Shareholders of Nordbanken Holding AB (publ) and Merita Plc will be held on March 25, 1999 in Stockholm and March 29, 1999 in Helsinki, respectively.

Nordbanken Holding

Shareholders of Nordbanken Holding who wish to participate in the Annual General Meeting must be directly registered in the share register not later than March 15, 1999, and shall submit notification of attendance by mail to Nordbanken Holding AB (publ), Group Legal, SE-105 71 Stockholm, Sweden, or by telefax +46 8 614 8770, or telephone +46 8 614 9710, or by Internet, address www.meritanordbanken.com; such notification to be received not later than 1 p.m. March 22, 1999.

Place: Stockholm Globe Arena, Annex, Entrance 2/Entrance 1, Stockholm

Time: 3.00 p.m. Information meeting for shareholders at 1.30 p.m.

Further information pertaining to the meeting, including the agenda and proposals for resolutions, can be obtained by shareholders from Nordbanken Holding, Group Legal, telephone +46 8 614 7829, or from the MeritaNordbanken Internet home page www.meritanordbanken.com.

Merita Plc

Shareholders of Merita who wish to participate in the Annual General Meeting must be registered in the company's share register not later than March 24, 1999 and shall submit notification of attendance by mail to Merita Plc, 2599 Share Register, P.O. Box 84, FIN-00101 Helsinki, Finland, or by telephone +358 9 165 40631 or +358 9 165 40632, such notification to be received not later than 4.15 p.m. March 24, 1999.

Place: Helsinki Fair Centre, Rautatieläisenkatu 3, Helsinki

Time: 3.00 p.m. Information meeting for shareholders at 1.00 p.m.

A complete notice of meeting and further information can be obtained from Merita, Investor Relations, telephone +358 9 165 43041 or from the MeritaNordbanken Internet home page www.meritanordbanken.com.

ALLIANCE LEICESTER

Alliance & Leicester Building Society
£200,000,000
Floating Rate Notes due 2000

For the interest period 26th February, 1999 to 28th May, 1999 the Notes will carry a Rate of Interest of 5.61156 per cent. per annum with interest amounts of £139.90 per £10,000 principal and £1,399.05 per £100,000 principal, payable on 28th May, 1999.

Listed on the Luxembourg Stock Exchange.

Bankers Trust Company, London — Agent Bank

US $400,000,000
AXA-UAP
Subordinated Perpetual Step-up Notes

For the period from March 3, 1999 to June 3, 1999 the Notes will carry an interest rate of 5.6275% per annum with an interest amount of US $143.81 per US $10,000 Note, US $1,438.14 per US $100,000 Note and of US $14,381.28 per US $1,000,000 Note. The relevant interest payment date will be June 3, 1999.

Agent Bank:
PARIBAS
PARIBAS LUXEMBOURG

DRESNER RCM EUROPEAN BOND FUND
Registered Office:
Central Parc 33, boulevard du Prince Henri, L-1724 Luxembourg

NOTICE

The Board of Directors resolves that Dresner RCM European Bond Fund will distribute a dividend out of the net income from investments which according to the shares outstanding should result in a dividend per share of EURO 1.0. Value date of dividend is the 10th March, 1999.

Paying agent: Sakura Bank (Luxembourg) S.A.
Central Parc 33, boulevard du Prince Henri,
L-1724 Luxembourg

The Board of Directors

US Treasuries lead small recovery

BENCHMARK BONDS

By Vincent Boland in London and John Labate in New York

Prices recovered a little yesterday after the sharp falls seen on Monday. The US-led recovery was not of great magnitude, with European markets, in particular, lacking conviction, and what was gained on the swings in choppy trading was often lost on the roundabouts.

US Treasuries recovered strongly from their overnight levels in early trading. By early afternoon the 30-year Treasury bond was ¾ higher at 94$\frac{27}{32}$, sending the yield down to 5.616 per cent. Among shorter-term issues the 10-year note was up ½ at 95$\frac{11}{16}$, yielding 5.324 per cent.

Monday's weakness came amid evidence of a surge in *the manufacturing sector*, suggesting the US economy was still in a strong growth phase. The data unnerved the markets because of the big rise in US gross domestic product in the fourth quarter, which reawakened fears that the Federal Reserve might raise interest rates.

That feeling continues to be uppermost in many investors' minds, but helping the bond market to recover yesterday were data on January house sales, which were well below expectations at 918,000 in although the market is still considered strong.

Japanese government bonds had closed higher overnight, with benchmark yields standing at just over 1.81 per cent, helped by an auction of six-year paper that was well-received by investors. That provided some impetus for European markets at the start, ahead of the US opening, as investors reversed some of their earlier gloom about the outlook for interest rate cuts.

The European central bank is not likely to cut today, and not everyone is convinced the Bank of England will oblige either after its Monetary Policy Committee concludes its deliberations today. Short sterling was pricing in a cut in the UK base rate of 25 basis points in early trading, however, and that was enough to lift UK gilt prices from overnight levels.

The view that the Bank might ease rates today was strengthened, although only mildly, by earnings data that showed a downward trend towards a rate of growth consistent with the official inflation target of 2.5 per cent. But there was some doubt as to the real meaning of the data to the MPC.

Ian Douglas, fixed-income specialist at Warburg Dillon Read and someone not expecting the Bank to cut, suggested a low number was likely to be less positive than a high number would have been negative. "The biggest influence on the market over the rest of this week will be the tone of comments accompanying the MPC's rate decision," he said.

The June gilt future rose a modest 0.09 to 116.23, with the short end of the yield curve helped most by the wage trends. The spread between two-year and 10-year gilts tightened to 22 basis points from 31 points.

Continental European markets edged higher but any advance was constrained in part by a slightly weaker euro. The German bund future rose 0.18 to 113.89, and the yield on 10-year cash bunds fell below 4.08 per cent.

Japanese tap better sentiment

NEW ISSUES

By Khozem Merchant and Arkady Ostrovsky

Japanese borrowers have been absent from the bond market for so long that the launch of two issues yesterday was a watershed.

Nippon Telegraph and Telephone and Tokyo Metropolitan Government – corporate and municipality - are at opposite ends of the borrower spectrum in Japan. Yesterday they tapped the new issues market on a wave of improved sentiment for Japanese borrowers. As one banker said: "Two months ago they would not have got a look in."

The renewed popularity of Japanese debt has been fuelled by progress in the bail-out of the country's troubled banks and more stable equity markets.

"There will be continued supply, especially from government-guaranteed issues, though not a flood," said Niall Cameron at Merrill Lynch.

NTT, one of the world's biggest telecoms companies, launched a five-year $500m bond, the first issue by a Japanese corporate in months. The bond, led by Merrill Lynch and Warburg Dillon Read, was priced to yield 75 basis points over US Treasuries and traded unchanged, encouraging bankers on a day when the swap market widened and there was still some residual uneasiness from last week's comments on the US economy by Alan Greenspan.

Tokyo Metropolitan Government launched a debut 10-year €150m bond. Sean Park, at Paribas, joint lead with IBJ, said TMG is a little removed from the general fiscal problems at many local authorities in Japan.

The TMG bond carried a government guarantee, which helped ease its way into a market re-opened earlier this month by Japan's Export-Import Bank and Japan Finance Corporation for Municipal Enterprises, which also carried government guarantees.

"Sentiment has really changed," said Park. "Two months ago this would have been tough to float."

Carrefour, an AA rated French supermarket group, launched a €1bn 10-year bond, in an attempt to establish a euro benchmark.

The issue was launched to yield 41 basis points over the relevant OAT. It is comparable with a 10-year Deutsche Telekom issue, which is trading at 42 basis points over OATs.

Colombia launched a $500m five-year issue with a 10.875 per cent coupon, exchangeable after one year into a 28-year bond with a coupon of 11.85 per cent. The bond was priced to yield 630 basis points over US Treasuries.

Richard Luddigton, at J.P. Morgan, the lead manager, said the dollar-denominated issue followed a failed attempt to find demand for euro-denominated paper.

New international bond issues

Borrower	Amount m.	Coupon %	Price	Maturity	Fees %	Spread bp	Book-runner
■ US DOLLARS							
NTT	500	6.00	99.609R	Mar 2004	0.25R	+75(4¾%Feb04)	Merrill/Warburg
Republic of Colombia(a)	500	10⅞#	97.354R	Mar 2004	0.75R	+630(Feb04)	JP Morgan Securities
Cygnus Funding Corp(b)‡	290	(b1)	99.90	Mar 2004	0.40	-	Goldman Sachs Intl
World Bank(c)	150	6.00	100.00R	Mar 2004	0.25R	-	ABN Amro
World Bank(d)	50	(d1)	98.875R	Mar 2009	0.25R	-	Morgan Stanley DW
■ EUROS(e)							
Reseau Ferre de France(f)	1bn	4.625	98.775R	Mar 2014	0.40R	+33(i)	ABN Amro/Paribas
Carrefour(f)	1bn	4.50	99.133R	Mar 2009	0.35R	+41(i)	BNP/Barclays Capital
HypoVereins Finance	500	3.50(l)	99.21R	Mar 2003	0.225R	+28(4½%Feb03)	HypoVereinsbank
Accor SA(j)§	370(j1)	1.00	100.00	Mar 2002	2.50	-	Deutsche Bank
Rheinische Hypo‡	300	(g)	99.875R	Mar 2002	0.125R	-	Salomon Smith Barney
Deutsche Finance Neths(h)	250	4.25(s)	97.105	Jul 2009	[illegible]	+50(3¾%Jan09)	Deutsche Bank
Royal Bank of Canada‡	250	(k)	100.002R	Mar 2001	0.10R	-	Deutsche Bank
Tokyo Metropolitan Govt	150	4.50	99.362R	Mar 2009	0.325R	+46(3¾%Jan09)	IBJ Intl/Paribas
World Bank(m)	75	7.625	101.875	Mar 2004	1.875	-	ING Barings-BBL
■ AUSTRALIAN DOLLARS							
BNG	100	5.50	100.895	Mar 2004	1.875	-	TD Securities

Final terms, non-callable unless stated. Yield spread (over relevent government bond) at launch supplied by lead manager. ★Unlisted. §Convertible. ‡ Floating-rate note. #Semi-annual coupon. R: fixed re-offer price; fees shown at re-offer level. a) Exchangeable in 1 yr into new bond paying 11.85% due 9/3/2028. b) Amortises from May 99: average life 2 yrs. b1) 1-mth Libor +70bp. c) Callable on 24/3/00 at par. d) $100m launched on 17/2/99 was increased to $150m. Callable annually from 12/3/00 at par. d1) 7¼% in yr 1, then 6%. e) Spread relates to German govt bonds unless stated. f) Spread re French govt bonds. g) 3-mth Euribor flat. h) Fungible with €2bn. Plus 40 days accrued. i) Over interpolated yield. j) Exchangeable into Compass Group plc shares at 954p. j1) Approximately, plus greenshoe. k) 3-mth Euribor flat. l) Long 1st coupon. m) Redemption linked to any fall in Dow Jones Stoxx 50 index. s) Short 1st coupon.

Weather contract announced in France

By Vincent Boland

Weather derivatives took another step towards becoming standard financial products when the first contract in France was announced yesterday between Soccram, a company specialising in heating efficiency and co-generation systems, and SG, the French banking group.

SG and Soccram said the contract involves the bank paying the heating company an agreed sum of money if temperatures over the next two winters, based on information provided by Météo France for the Paris Orly region, are warmer than a pre-agreed level.

Weather derivatives are one of the fastest-growing areas of the over-the-counter market, even though they are only about 18 months old. After taking off in the US in the past year, as companies, especially utilities and insurance companies, sought protection against adverse weather conditions, derivatives contracts are shortly expected to become tradable instruments.

The Chicago Mercantile Exchange is awaiting approval from the Commodity Futures Trading Commission in the US to begin trading the contracts, probably later this year. Estimates of the number of contracts written between US parties so far range as high as 1,200.

The trend is now spreading to Europe. Last November, Enron of the US and Scottish Hydro-Electric agreed the first such contract of its type.

Diego Wauters, global head of insurance derivatives at SG in London, said the agreement with Soccram represented the first transaction of its kind in France.

EIB to issue €15bn of bonds in 1999

By Khozem Merchant

The European Investment Bank has sought to reaffirm its status as Europe's leading issuer of non-government bonds by unveiling a big euro-denominated benchmark debt issuance programme.

The EIB, the financing arm of the European Union, which is rated AAA by the main credit rating agencies, said it would issue up to €15bn of benchmark bonds this year across the maturity spectrum.

The new bonds will be issued under a programme known as EARNs – euro area reference notes – and will bring together all future EIB bond issues denominated in euros under a single umbrella. Hitherto, the bank has issued on a bond-by-bond basis.

The move represents a boost for the euro's hopes of rivalling the US dollar as a preferred unit of issuance. In the first two months of this year issuance of euro-denominated bonds has narrowly exceeded that of dollars, while European banks have underwritten more international bonds over the same period than their US rivals, according to research group Capital Data.

The EIB said it had appointed ABN Amro and Paribas as joint arrangers of its programme, which will be underwritten and distributed by 10 primary dealers, including the arrangers and Deutsche Bank, HSBC Markets, Nomura International, Santander Investment, IMI, Goldman Sachs, Merrill Lynch and Warburg Dillon Read.

Rene Karsenti, EIB director general of finance, said: "We want to position ourselves as the best surrogate for government debt. We have the means to achieve this."

The €15bn of EARNs due to be issued this year by the EIB will represent half the bank's total funding requirement for 1999.

About 25 per cent of the total has already been drawn down this year and the balance will be raised through more "tailored transactions," Mr Karsenti said. The EIB launched the equivalent of €20bn of bonds last year

Roy Boecker, managing director at ABN Amro, compared the EIB's euro area reference note issuance, which will include a combination of auctions and syndicated sales, with the borrowing programmes of many sovereign borrowers, which are moving towards that structure.

"This programme consolidates the EIB's euro strategy of the past three years and allows it to position itself at the forefront of sovereign and other AAA rated borrowers," Mr Boecker said.

Each of the EIB's new reference note issues will be for a minimum of €2bn and will be launched each quarter. The annual programme will be set each December.

Mr Karsenti said the benefits of the new programme would be greater liquidity, transparency and regularity of issuance. Investors have indicated a preference for a programme that was visible in terms of structure and consistent in terms of issuance. EARNs met both of these criteria, he added.

WORLD BOND PRICES

BENCHMARK GOVERNMENT BONDS

Mar 2	Red Date	Coupon	Bid Price	Bid Yield	Day chg yield	Wk chg yield	Month chg yld	Year chg yld
Australia	01/01	6.750	103.4222	5.07	+0.07	+0.10	+0.38	-0.14
	08/08	6.750	122.6877	5.60	+0.10	+0.16	+0.55	-0.40
Austria	03/01	5.250	103.7100	3.32	-0.03	+0.21	+0.29	-0.72
	01/08	5.000	105.6700	4.22	-0.05	+0.21	+0.35	-0.80
Belgium	03/01	6.000	103.2800	3.28	+0.01	+0.21	+0.33	-0.75
	09/08	3.750	[illegible]	4.29	-	+0.20	+0.40	-0.72
Canada	12/00	5.000	99.6400	5.28	-0.05	+0.08	+0.48	+0.22
	06/08	6.000	104.7000	5.36	-0.08	+0.08	+0.38	-0.15
Denmark	11/00	8.000	108.6100	3.61	-0.04	+0.15	+0.20	-0.84
	11/09	6.000	112.2100	4.63	-0.01	+0.26	+0.58	-0.70
Finland	08/00	4.000	101.0360	3.16	+0.01	+0.16	+0.21	-0.82
	04/09	5.000	[illegible]	4.34	+0.02	+0.25	+0.49	-0.59
France	07/00	4.000	101.0500	3.16	-	+0.16	+0.23	-0.78
	04/05	7.250	120.8700	3.83	-0.02	+0.21	+0.40	-0.84
	04/09	4.000	98.5300	4.17	-0.02	+0.20	+0.43	-0.78
	04/29	5.500	106.7600	5.05	-0.01	+0.23	+0.43	-0.44
Germany	05/01	5.000	103.7400	3.21	-0.01	+0.20	+0.24	-0.59
	01/05	6.000	112.1600	3.83	-0.04	+0.21	+0.41	-0.76
	01/09	3.750	97.4600	4.07	-0.03	+0.20	+0.35	-0.85
	07/28	4.750	95.6800	5.01	-0.02	+0.21	+0.38	-0.47
Greece	03/00	8.800	100.2395	9.55	-0.05	+0.06	-0.42	-6.27
	01/09	6.300	101.5000	6.09	-0.07	+0.13	-0.04	-4.71
Ireland	10/01	6.500	107.7600	3.35	-0.01	+0.21	+0.27	-1.43
	08/08	6.000	113.3000	4.25	-0.01	+0.21	+0.38	-0.82
Italy	07/01	4.500	102.5700	3.28	+0.01	+0.20	+0.29	-1.28
	07/03	4.500	103.3800	3.65	-0.01	+0.23	+0.35	-1.17
	05/08	4.500	101.8400	4.27	-0.02	+0.22	+0.39	-0.98
	11/27	6.500	119.2200	5.20	-0.02	+0.21	+0.39	-0.55
Japan	12/00	6.600	111.7060	0.31	+0.01	-0.01	-0.34	-0.28
	12/05	4.100	114.1380	1.06	-0.03	-0.03	-0.38	-0.19
	06/08	1.800	99.9600	1.80	-0.04	-0.07	-0.22	+0.08
	09/18	2.300	93.9460	2.70	-0.04	-0.09	-0.11	+0.16
Netherlands	01/01	9.000	110.2400	3.21	-0.02	+0.18	+0.26	-0.73
	07/09	3.750	95.3100	4.19	-0.03	+0.22	+0.39	-0.71
New Zealand	02/01	8.000	105.1894	5.12	+0.02	+0.08	+0.21	-2.46
	07/09	7.000	108.4310	5.90	+0.10	+0.16	+0.47	-0.98
Norway	05/01	7.000	103.9500	5.07	+0.03	+0.13	+0.34	+0.79
	05/09	5.500	103.2000	5.09	+0.06	+0.33	+0.44	-0.17
Portugal	03/00	5.375	102.2900	3.10	-0.16	+0.12	+0.13	-0.67
	06/08	5.375	108.0400	4.30	-0.02	+0.23	+0.39	-0.85
Spain	01/01	5.000	103.3300	3.16	-0.03	+0.18	+0.22	-1.06
	07/09	5.150	104.7700	4.56	-0.03	+0.22	+0.69	-0.54
Sweden	05/00	10.250	107.6795	3.40	-0.02	+0.14	+0.13	-1.26
	05/08	6.500	115.0190	4.46	-0.07	+0.28	+0.50	-0.96
Switzerland	*08/00*	*4.500*	*103.6000*	*1.41*	*+0.03*	*+0.11*	*+0.03*	*+0.05*
	01/08	4.250	115.4300	2.30	+0.01	+0.10	+0.04	-0.51
UK	11/01*	7.000	105.1200	4.93	-0.03	+0.23	+0.38	-1.82
	12/03	6.500	107.5800	4.70	-0.04	+0.25	+0.51	-1.48
	12/09	5.750	109.6100	4.61	-	+0.26	+0.42	-1.41
	12/28	6.000	123.4600	4.55	+0.01	+0.19	+0.35	-1.42
US	01/01	4.500	98.8303	5.16	-0.05	+0.07	+0.44	-0.46
	02/04	4.750	97.9097	5.24	-0.07	+0.12	+0.55	-0.52
	11/08	4.750	95.8635	5.33	-0.06	+0.15	+0.49	-0.46
	02/29	5.250	94.5884	5.63	-0.04	+0.12	+0.36	-0.42

London mid-day. * New York mid-day. Source: Interactive Data/FT Information
Yields: Local market standard/Annualised yield basis. Yields shown for Italy exclude withholding tax at 12.5 per cent payable by nonresidents.

10 YEAR BENCHMARK SPREADS

Mar 2	Bid Yield	Spread vs Euros	Spread vs T-Bonds
Australia	5.61	+1.53	+0.29
Austria	4.35	+0.28	-0.96
Belgium	4.28	+0.20	-1.04
Canada	5.36	+1.28	+0.04
Denmark	4.49	+0.41	-0.83
Finland	4.32	+0.24	-1.00
France	4.17	+0.09	-1.15
Germany	4.08	-	-1.24
Greece	*6.24*	*+2.16*	*+0.92*
Ireland	4.31	+0.23	-1.01
Italy	4.30	+0.22	-1.02
Japan	1.85	-2.23	-3.47
Netherlands	4.23	+0.15	-1.09
New Zealand	5.91	+1.83	+0.59
Norway	5.09	+1.01	-0.23
Portugal	4.36	+0.28	-0.96
Spain	4.40	+0.32	-0.92
Sweden	4.49	+0.41	-0.83
Switzerland	2.46	-1.62	-2.86
UK	4.71	+0.63	-0.61
US	*5.32*	*+1.24*	-

Source: Interactive Data/FT Information
London closing. * New York closing.
Annualised yield basis.

EMERGING MARKET BONDS

Mar 2	Red date	Coupn	S & P Rating	Bid price	Bid yield	Day's chge yld	Mth's chge yld	Sprd vs US
■ EUROPE								
Croatia	02/02	7.000	BBB-	93.7397	9.46	+0.09	-	+4.30
Poland	07/04	7.125	BBB-	104.7705	6.04	+0.04	+0.14	+0.80
Russia	06/07	10.000	n/a	25.3800	44.10	-0.47	+7.02	+38.81
■ LATIN AMERICA								
Argentina	08/27	9.750	BB	79.8846	12.30	-0.02	+0.53	+6.71
Brazil	05/27	10.125	B+	63.3130	16.10	+0.22	+0.05	+10.51
Mexico	05/26	11.500	BB	104.0834	11.02	+0.07	+0.31	+5.45
■ ASIA								
China	07/06	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Philippines	10/16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Thailand	04/07	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
■ AFRICA/MIDDLE EAST								
Lebanon	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
South Africa	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Turkey	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
■ BRADY BONDS								
Argentina	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Brazil	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mexico	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Venezuela	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

London closing. Prices in US$. Standard & Poor's ratings. Source: Interactive Data/FT Information.

BOND FUTURES AND OPTIONS

France

■ NOTIONAL EURO BOND FUTURES (MATIF) €100,000

	Open	Sett price	Change	High	Low	Est. vol.	Open int.
Mar	109.31	109.80	+0.17	109.89	109.31	38,068	85,337

[illegible]

Germany [illegible]

Italy [illegible]

Spain [illegible]

UK [illegible]

US [illegible]

Japan [illegible]

Euro [illegible]

US CORPORATE BONDS

Mar 1	Red date	Coupon	S & P Rating	Bid price	Bid yield	Day's chge yld	Mth's chge yld	Sprd v Govts
■ UTILITIES								
Pac Bell	07/02	7.25	AA-	104.2122	[illegible]	+0.10	+0.59	+0.83
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Source: Interactive Data/FT Information.

US INTEREST RATES

[illegible]

INTERNATIONAL BONDS

Mar 2	Red date	Coupon	S & P Rating	Bid price	Bid yld	Day's chge yld	Mth's chge yld	Spread v Govts
■ $								
EIB	04/07	7.250	AAA	107.3774	6.07	-0.02	+0.08	+0.78
ABN Amro	08/07	7.125	AA-	103.7346	6.52	-0.02	-0.01	+1.23
Quebec	01/07	7.000	A+	104.9944	6.19	-0.02	+0.11	+0.90
Citicorp FRN	02/04	5.086	AA-	99.8953	5.32	-0.03	-1.40	+0.06
■ DM								
Bayer L-Bk	06/04	6.500	AAA	116.5218	3.65	-0.09	+0.60	+0.21
Toronto (M of)	06/04	6.500	AA+	111.5311	3.78	-0.09	+0.50	+0.14
Bell Canada	07/09	10.625	A+	101.6095	5.59	-0.06	+0.45	+1.25
[illegible] FRN	09/02	5.675	AA+	99.9212	5.90	-0.07	+0.45	+0.33
■ £								
EIB	12/07	7.625	AAA	116.8326	5.18	-0.01	+0.35	+0.39
Dresdner Bk	12/07	7.750	AA-	110.9716	6.05	-0.01	+0.29	+1.30
British Gas	03/00	7.625	A+	101.9700	5.56	+0.00	-0.11	+0.65
Abbey Nat FRN	02/02	5.587	AA	100.0152	4.53	-0.05	+0.25	-0.29
■ SFr								
EIB	01/08	3.750	AAA	103.5780	3.26	+0.01	+0.03	+0.98
Brit Columbia	02/02	3.250	AA	103.7584	1.93	-	+0.02	+0.30
Hydro-Quebec	06/01	6.750	n/a	108.8654	2.57	+0.01	+0.04	+1.05
Gen Elect.	09/01	1.711	n/a	99.7957	1.52	-	+0.03	-
■ YEN								
IBRD (World Bk)	03/02	5.250	AAA	114.2542	0.62	+0.01	-0.02	-0.06
Spain (Kingdom)	03/02	5.750	AA	115.6176	0.57	-0.01	-0.34	-0.03
Cred Foncier	08/02	4.750	A	112.4237	1.04	-0.01	-0.41	+0.44
Italy (Rep of)	07/99	0.516	AA	100.0455	0.28	+0.06	-0.07	+0.03
■ A$								
IBRD (World Bk)	02/08	6.000	AAA	101.1319	5.83	+0.07	+0.39	+0.24
Nw Sth Wales Tr	05/08	6.500	n/a	103.7442	5.95	+0.08	+0.38	+0.37
S. Aus Gov Fin	06/03	7.750	AA	107.1923	5.82	+0.06	+0.28	+0.58
GMAC Aust	05/01	8.000	n/a	105.6215	5.71	+0.06	+0.22	+0.65

London closing. Source: Interactive Data/FT Information
Standard & Poor's ratings. Yields: Local market standard/Annualised basis.

UK BONDS

FTSE Actuaries Government Securities — UK Indices

[illegible]

Index-linked	Tue Mar 2	Day's chge %	Accrued interest	xd adj ytd	Total Return	% Weight
1 Up to 5 years (2)	224.80	+0.01	2.02	0.00	1107.35	10.05
2 Over 5 years (8)	257.33	+0.06	0.98	2.15	1397.31	84.97
3 5-15 years (5)	240.16	+0.05	0.78	2.03	1308.09	42.71
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

FT Fixed Interest Indices [illegible]

UK GILTS PRICES

[illegible]

Other Fixed Interest

[illegible]

CURRENCIES & MONEY

Real's rapid fall threatens overshoot

MARKETS REPORT

By Melanie Carroll and Alan Beattie

The Brazilian Real remained under pressure yesterday, sliding to a new low despite central bank intervention.

The bank began to sell dollars at R$2.10 early after the market opened, stepping in again several hours later when the Real hit a low of R$2.22.

It closed at R$2.15 at the end of London trading.

Gene Frieda, analyst at the economic consultancy 4Cast, said the bank did not sell enough dollars to make much difference, despite the thin market.

Mr Frieda said the government's attempt to support the currency through market intervention would encourage speculative attacks on the Real. He said he believed hiking interest rates at the central bank's meeting tomorrow would be more effective.

"In real terms interest rates are negative," he said.

Mr Frieda said the January Real devaluation had been greeted by initial relief, but the currency was still overshooting and inflation is rising while the government reserves are low.

■ The euro had a day of consolidation yesterday as talk of Bundesbank intervention kept the currency propped around $1.09.

It dipped below the $1.09 level during the London trading session but then closed at $1.093.

Rumours swirled in the market that the Bundesbank had been intervening around the $1.09 level to support the euro. But analysts at banks close to the Bundesbank said that the amount of business transacted was more consistent with commercial deals than a full-blown support operation.

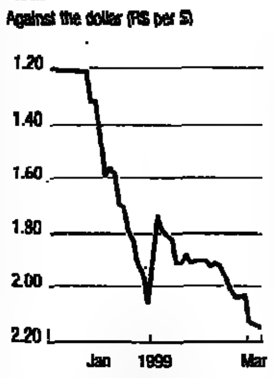
Analysts said that there were certain key levels just below $1.09 whose breach might precipitate a further euro fall. "There are many stories of dollar call options around $1.085," said Mike Wallace, currency analysis manager at Standard and Poor's MMS. "If the dollar breaks down through that level, it could accelerate."

Ravi Bulchandani, senior currency strategist at Morgan Stanley Dean Witter, said he expects the euro to stabilise in the short term but weaken to $1.05 in the medium term.

"The euro will weaken, although today was a constructive, consolidative day," he said. People were not being overly pessimistic about the euro, he added.

Mr Bulchandani said the euro's slight firming was caused by a calming down in the US bond market, and recent data showing some stability in the euro-zone economy.

Real
Against the dollar (R$ per $)



Source: Datastream/ICV

■ Sterling had a good day yesterday, as the restored average earnings data increased the possibility of interest rates remaining on hold for the time being.

The relaunch of the key index on the day that the Bank of England's monetary policy committee starts its two-day interest rate meeting was keenly anticipated by the market, with many traders marking sterling up ahead of the release.

The pound rose against the euro and the dollar, closing at the end of London trading at $1.616 and £0.676.

The new figures showed average earnings at 4.5 per cent in the three months centred on November, a level consistent with hitting the 2.5 per cent inflation target in the long run. Coming after hawkish comments by Eddie George, the Bank of England's governor, over the weekend, the mood in the market shifted against continued immediate cuts in interest rates.

"The main thing driving sterling this week has been changes in relative interest rates," said Jeremy Stretch, currency strategist at NatWest GFM in London. "The average earnings numbers we saw this morning don't preclude the Bank of England lopping a bit more off interest rates this week. But the most important thing is that the market now believes last week's interest rate pessimism was a bit overdone."

Mr Stretch said that the December 2000 short sterling contract was now pricing in a repo rate of around 5.5 per cent.

"This is a big reversal from the levels it was down to late last year," he said. "It shows that 5 per cent is not the level forever set for UK interest rates."

■ POUND IN NEW YORK

Mar 2	—Latest—	— Prev. close —
£ spot	1.6140	1.6095
1 mth	1.6133	1.6088
3 mth	1.6127	1.6080
1 yr	1.6159	1.6101

■ OTHER CURRENCIES

Mar 2	£	$
Czech Rp	55.5327 - 55.6164	34.3730 - 34.4000
Hungary	372.850 - 373.414	230.830 - 231.030
Iran	4848.90 - 4845.90	3000.00 - 3000.00
Kuwait	0.4930 - 0.4925	0.3046 - 0.3047
Peru	5.4708 - 5.4826	3.3900 - 3.3930
Poland	6.3966 - 6.4167	3.9600 - 3.9700
Russia	37.3780 - 37.4497	23.1400 - 23.1700
U.A.E.	5.9330 - 5.9370	3.6730 - 3.6732

POUND SPOT FORWARD AGAINST THE POUND

Mar 2		Closing mid-point	Change on day	Bid/offer spread	Day's Mid high	Day's Mid low	One month Rate	One month %PA	Three months Rate	Three months %PA	One year Rate	One year %PA	Bank of Eng. Index
Europe													
Austria*	(Sch)	20.3467	+0.1118	378 - 558	20.3785	20.2793	20.3049	2.5	20.2359	2.2	19.981	2.0	102.3
Belgium*	(BFr)	59.6488	+0.3279	221 - 754	59.7410	59.4520	59.5263	2.5	59.3239	2.2	58.4301	2.0	102.0
Denmark	(DKr)	10.9915	+0.0592	857 - 973	11.0077	10.9614	10.9718	2.2	10.94	1.9	10.8077	1.7	105.5
Finland*	(FM)	8.7917	+0.0483	878 - 956	8.8050	8.7630	8.7738	2.2	8.7439	2.2	8.6121	2.0	81.1
France*	(FFr)	9.6894	+0.0534	990 - 037	9.7145	9.6672	9.6795	2.5	9.6458	2.2	9.5013	2.0	105.1
Germany*	(DM)	2.8920	+0.0159	907 - 933	2.8973	2.8818	2.888	2.5	2.8762	2.2	2.8329	2.0	102.9
[illegible]													

South Africa	(R)	10.0907	+0.0942	795 - 019	10.1065	10.0092	10.1662	-11.2	10.3321	-9.6	10.9689	-8.8	-
South Korea	(Won)	[illegible]	[illegible]	[illegible]	1961.50	1955.58	-	-	-	-	-	-	-
Taiwan	(T$)	53.4426	+0.3852	857 - 995	54.6985	53.0692	53.5812	-3.4	54.102	-4.8	54.9239	-2.8	-
Thailand	(Bt)	60.5491	+0.5781	738 - 244	60.7980	60.1040	61.0843	-8.2	61.3995	-4.9	63.1412	-4.1	-

† Rates for Feb 26. Bid/offer spreads in the Pound Spot table show only the last three decimal places. Sterling index calculated by the Bank of England. Base average 1990 = 100. [illegible] * EMU member. The exchange rates printed in this table are also available on the internet at [illegible]

DOLLAR SPOT FORWARD AGAINST THE DOLLAR

Mar 2		Closing mid-point	Change on day	Bid/offer spread	Day's mid high	Day's mid low	One month Rate	One month %PA	Three months Rate	Three months %PA	One year Rate	One year %PA	J.P. Morgan Index
Europe													
Austria*	(Sch)	12.5924	+0.0089	908 - 941	12.6695	12.5849	12.5725	1.9	12.5339	1.9	12.3218	2.1	102.3
Belgium*	(BFr)	36.9180	+0.0263	109 - 210	37.1420	36.8940	36.8577	1.9	36.7445	1.9	36.1227	2.1	102.3
Denmark	(DKr)	6.8025	+0.0030	010 - 040	6.8457	6.8002	6.7935	1.8	6.7761	1.8	6.6815	1.8	104.8
Finland*	(FM)	6.4411	+0.0030	403 - 418	6.4744	6.4378	6.4325	1.9	6.4158	1.9	6.3242	2.1	80.5
France*	(FFr)	6.0028	+0.0033	020 - 036	6.0396	5.9992	5.9933	1.9	5.9749	1.9	5.8736	2.1	105.0
[illegible]													

Singapore	(S$)	1.7356	+0.0087	[illegible]
South Africa	(R)	6.2450	+0.0075	400 - [illegible]
South Korea	(Won)	1224.25	+5.3500	[illegible]
Taiwan	(T$)	33.0750	+0.0750	500 - 000
Thailand	(Bt)	37.5350	+0.2350	[illegible]

† SDR rate per $ for Feb 26. ‡ Official rate set by Malaysian government. Bid/offer spreads in the Dollar Spot table show only the last three decimal places. 1990=100. Bid, offer, mid spot rates and forward rates in both this and [illegible] values are rounded by the FT. * EMU member. The exchange rates printed [illegible]

WORLD INTEREST RATES

MONEY RATES

[illegible]

INTERNATIONAL CURRENCY RATES

[illegible]

■ THREE MONTH EUROMARK FUTURES, ■ THREE MONTH EUROBOR FUTURES (LIFFE) €1m 100 - rate, ■ THREE MONTH EURO LIBOR FUTURES (LIFFE) €1m 100 - rate, ■ EUROMARK OPTIONS (LIFFE), ■ THREE MONTH EURO LIBOR OPTIONS (LIFFE) €1m 100 - rate, ■ THREE MONTH EURO SWISS FRANC FUTURES (LIFFE) SFr1m 100 - rate, ■ THREE MONTH EUROYEN FUTURES (LIFFE) Y100m 100 - rate:

[illegible]

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	-	99.77	+0.05	-	-	0	n/a
Sep	-	99.74	+0.04	-	-	0	n/a

* LIFFE futures also traded on APT

■ EURO SWISS FRANC OPTIONS (LIFFE) SFr1m 100 - rate

Strike Price	CALLS Mar	CALLS Jun	CALLS Sep	PUTS Mar	PUTS Jun	PUTS Sep
98750	0.010	0.070	0.100	0.180	0.340	0.480
98875	0.005			0.300		

Est. vol. total, Calls 300 Puts 50. Previous day's open int., Calls 3889 Puts 3312

CROSS RATES AND DERIVATIVES

EXCHANGE CROSS RATES

Mar 2		BFr	DKr	FFr	DM	I£	L	Fl	NKr	Es	Pta	SKr	SFr	£	C$	$	Y	€
Belgium*	(BFr)	100	18.43	16.26	4.848	1.952	4800	5.463	21.45	497.0	412.5	22.30	3.949	1.677	4.120	2.709	325.8	2.479
Denmark	(DKr)	54.27	10	8.824	2.631	1.059	2605	2.965	11.64	269.7	223.8	12.10	2.143	0.910	2.236	1.470	176.8	1.345
France*	(FFr)	61.50	11.33	10	2.982	1.201	2952	3.360	13.19	305.6	253.7	13.72	2.429	1.031	2.534	1.666	200.4	1.525
Germany*	(DM)	20.63	3.801	3.354	1	0.403	990.0	1.127	4.424	102.5	85.07	4.600	0.814	0.346	0.850	0.559	67.20	0.511
Ireland*	(I£)	51.22	9.438	8.329	2.483	1	2459	2.798	10.99	254.6	211.3	11.42	2.023	0.859	2.110	1.388	166.9	1.270
Italy*	(L)	2.083	0.384	0.339	0.101	0.041	100	0.114	0.447	10.35	8.593	0.465	0.082	0.035	0.086	0.056	6.788	0.052
Netherlands*	(Fl)	18.31	3.373	2.977	0.888	0.357	878.6	1	3.927	90.97	75.50	4.083	0.723	0.307	0.754	0.496	59.65	0.454
Norway	(NKr)	46.62	8.591	7.581	2.260	0.910	2238	2.547	10	231.7	192.3	10.40	1.841	0.782	1.921	1.263	151.9	1.156
Portugal*	(Es)	20.12	3.708	3.272	0.976	0.393	965.8	1.099	4.316	100	82.99	4.488	0.795	0.337	0.829	0.545	65.56	0.499
Spain*	(Pta)	24.24	4.468	3.942	1.175	0.473	1164	1.324	5.201	120.5	100	5.407	0.957	0.406	0.999	0.657	79.00	0.601
Sweden	(SKr)	44.84	8.262	7.291	2.174	0.875	2152	2.449	9.617	222.8	184.9	10	1.771	0.752	1.847	1.215	146.1	1.111
Switzerland	(SFr)	25.32	4.666	4.116	1.228	0.494	1215	1.383	5.432	125.9	104.4	5.648	1	0.425	1.043	0.686	82.51	0.628
UK	(£)	59.65	10.99	9.699	2.892	1.165	2863	3.258	12.79	296.4	246.0	13.30	2.356	1	2.458	1.616	194.4	1.479
Canada	(C$)	24.27	4.472	3.947	1.177	0.474	1165	1.326	5.206	120.6	100.1	5.413	0.958	0.407	1	0.657	79.08	0.602
USA	($)	36.91	6.803	6.003	1.790	0.721	1772	2.017	7.919	183.5	152.3	8.234	1.458	0.619	1.521	1	120.3	0.915
Japan	(Y)	30.69	5.655	4.990	1.488	0.599	1473	1.677	6.583	152.5	126.6	6.845	1.212	0.515	1.265	0.831	100	0.761
Euro	(€)	40.34	7.434	6.560	1.956	0.788	1936	2.204	8.653	200.5	166.4	8.997	1.593	0.676	1.662	1.093	131.4	1

Danish Kroner, French Franc, Norwegian Kroner, and Swedish Kronor per 10; Belgian Franc, Yen, Escudo, Lira and Peseta per 100. * EMU member.

■ D-MARK FUTURES (CME) DM 125,000 per DM

	Open	Latest	Change	High	Low	Est. vol	Open int.
Mar	0.5571	0.5591	+0.0021	0.5592	0.5556	12,598	58,434
Jun	0.5597	0.5612	+0.0015	0.5616	0.5589	667	2,569
Sep	-	0.5625	-	-	-	30	183

■ JAPANESE YEN FUTURES (CME) Yen 12.5m per Yen 100

	Open	Latest	Change	High	Low	Est. vol	Open int.
Mar	0.8367	0.8302	-0.0085	0.8389	0.8286	12,104	82,110
Jun	0.8445	0.8402	-0.0057	0.8445	0.8390	4,305	11,107
Sep	-	0.8570	-0.0007	-	-	8	1,511

■ SWISS FRANC FUTURES (CME) SFr 125,000 per SFr

	Open	Latest	Change	High	Low	Est. vol	Open int.
Mar	0.6843	0.6874	+0.0029	0.6875	0.6830	15,647	58,411
Jun	0.6915	0.6931	+0.0023	0.6938	0.6913	480	8,093
Sep	-	0.6980	+0.0008	0.6985	-	7	322

■ STERLING FUTURES (CME) £62,500 per £

	Open	Latest	Change	High	Low	Est. vol	Open int.
Mar	1.6086	1.6144	+0.0050	1.6156	1.6040	7,459	67,625
Jun	1.5980	1.6135	+0.0064	1.6144	1.5980	4,485	7,176
Sep	-	1.6120	+0.0042	1.6180	-	8	235

UK INTEREST RATES

LONDON MONEY RATES

Mar 2	Over-night	7 days notice	One month	Three months	Six months	One year
Interbank Sterling	7¼ - 5¾	5¾ - 5¾	5½ - 5⅜	5⅜ - 5¼	5⅜ - 5¼	5⅜ - 5¼
Sterling CDs	-	-	5⅜ - 5¼	5⅜ - 5¼	5¼ - 5⅛	5⅜ - 5¼
Treasury Bills	-	-	5⅜ - 5¼	5¼ - 5⅛	-	-
Bank Bills	-	-	5⅜ - 5¼	5¼ - 5⅛	-	-
Local authority deps.	5¾ - 5½	5⅜ - 5¼	5⅜ - 5¼	5⅜ - 5¼	5¼ - 5⅛	5¼ - 5⅛
Discount Market deps	5½ - 5¼	5½ - 5¼	-	-	-	-

UK clearing bank base lending rate 5½ per cent from Feb 4, 1999

	Up to 1 month	1-3 month	3-6 months	6-9 months	9-12 months
Certs of Tax dep. (£100,000)	4	6.5	6.5	6.25	5.25

Certs of Tax dep. under £100,000 is 4pc. Deposits withdrawn for cash 2pc. Ave. tender rate of discount on Feb 19, 5.012pc. ECGD fixed rate Stlg. Export Finance. Make up day Feb 26, 1999. Agreed rate for period Mar 24, 1999 to Apr 23, 1999, Scheme III 6.60pc. Reference rate for period Jan 30, 1999 to Feb 26, 1999, Schemes IV & V 5.650pc. Finance House Base Rate 6.0pc for Mar 1999.

■ THREE MONTH STERLING FUTURES (LIFFE) £500,000 points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Mar	94.620	94.650	+0.060	94.680	94.600	39458	179709
Jun	94.770	94.865	+0.115	94.880	94.750	87318	193481
Sep	94.730	94.815	+0.105	94.830	94.710	52421	190006
Dec	94.480	94.580	+0.095	94.590	94.460	18074	149769
Mar	94.620	94.690	+0.080	94.720	94.610	17458	141405

Also traded on APT. All Open interest figs. are for previous day.

■ SHORT STERLING OPTIONS (LIFFE) £500,000 points of 100%

Strike Price	CALLS Mar	CALLS Jun	CALLS Sep	PUTS Mar	PUTS Jun	PUTS Sep
94500	0.180	0.410	0.430	0.020	0.045	0.115
94625	0.085			0.060		
94750	0.045	0.225	0.280	0.135	0.110	0.215
94875	0.020			0.235		
95000	0.005	0.100	0.165	0.345	0.235	0.350
95125	0			0.465		

Est. vol. total, Calls 22185 Puts 10925. Previous day's open int., Calls 577457 Puts 644538

EMS EUROPEAN CURRENCY UNIT RATES

[illegible]

■ PHILADELPHIA SE £/$ OPTIONS £31,250 (cents per pound)

[illegible]

■ PHILADELPHIA SE D-MARK/$ OPTIONS DM62,500 ($ per DM)

[illegible]

■ THREE MONTH EURODOLLAR (CME) $1m points of 100%

[illegible]

■ US TREASURY BILL FUTURES (CME) $1m per 100%

[illegible]

All Open interest figs. are for previous day

[illegible]

BASE LENDING RATES

	%		%		%
Adam & Company	5.50	Exeter Trust Limited	6.50	Smith & Williamson	5.50
Allied Irish Bank (GB)	5.50	●Robert Fleming & Co	5.50	Sun Bank	5.50
●Henry Ansbacher	5.50	Habib Bank AG Zurich	5.50	TSB	5.50
Banco Bilbao Vizcaya	5.50	Heritable & Gen Inv Bk	5.50	United Bank of Kuwait	5.50
Bank of Cyprus	5.50	C. Hoare & Co	5.50	Unity Trust Bank Plc	5.50
Bank of Ireland	5.50	●SG Hambros Bank & Trust	5.50	Whiteaway Laidlaw	5.50
Bank of India	5.50	Hongkong & Shanghai	5.50	Yorkshire Bank	5.50
Bank of Scotland	5.50	Investec Bank (UK) Ltd	5.50		
Barclays Bank	5.50	Julian Hodge Bank	5.50		
Brit Bk of Mid East	5.50	●Leopold Joseph & Sons	5.50		
●Brown Shipley & Co Ltd	5.50	Lloyds Bank	5.50		
Citibank NA	5.50	Midland Bank	5.50		
Clydesdale Bank	5.50	NatWestminster	5.50		
The Co-operative Bank	5.50	●Rea Brothers	5.50		
Coutts & Co	5.50	Royal Bk of Scotland	5.50		
Cyprus Popular Bank	5.50	Scottish Widows Bank	5.50		
Duncan Lawrie	5.50	●Singer & Friedlander	5.50		

● Members of London Investment Banking Association

SGA SOCIETE GENERALE ACCEPTANCE N.V.
FRF 800 000 000 REVERSE FLOATING RATE NOTES DUE DECEMBER 2003
ISIN CODE : XS0046033972
For the period March 01, 1999 to June 01, 1999
the new rate has been fixed at 10.0785 % P.A.
Next payment date : June 01, 1999
Coupon nr : 20
Amount :
FRF 2 575.62 for the denomination of FRF 100 000
FRF 25 756.17 for the denomination of FRF 1 000 000
THE PRINCIPAL PAYING AGENT
SOCIETE GENERALE BANK & TRUST S.A.
11-13, AVENUE EMILE REUTER
L-2420 LUXEMBOURG

AUCTION NOTICE
UK GOVERNMENT EURO TREASURY BILLS
For auction on 9 March 1999

1. The Bank of England announces the issue by Her Majesty's Treasury of €1,000 million nominal of UK Government Euro Treasury Bills, for auction on a bid-yield basis on Tuesday, 9 March 1999. An additional €50 million nominal of Bills will be allotted directly to the Bank of England for the account of the Exchange Equalisation Account.

2. The Bills to be issued by auction will be dated 11 March 1999 and will be in the following maturities:
€200 million for maturity on 15 April 1999,
€500 million for maturity on 10 June 1999 and
€300 million for maturity on 16 September 1999.

3. The auctions will be open to anyone who wishes to apply. All applications must be made on the printed application forms available on request from the Bank of England or, in the case of the market makers listed in the Information Memorandum (as supplemented), by telephone. Completed application forms must be lodged, by hand, at the Bank of England, Customer Settlement Services, Threadneedle Street, London not later than 10.30 a.m., London time, on Tuesday, 9 March 1999. Payment for Bills allotted will be due on Thursday, 11 March 1999.

4. Each application at each yield for each maturity must be made on a separate application form for a minimum of €500,000 nominal. Applications above this minimum must be in multiples of €100,000 nominal.

5. Applications must be made on a yield basis (calculated on the basis of the actual number of days to maturity and a year of 360 days) rounded to two decimal places. Each application form must state the maturity date of the Bills for which application is made, the yield bid and the amount applied for.

6. Notification will be despatched on the day of the auction to applicants whose applications have been accepted in whole or in part. For applicants who have requested credit of Bills in global form to their account with Euroclear or Cedelbank, Bills will be credited in the relevant systems against payment. For applicants who have requested definitive Bills, Bills will be available for collection at Customer Settlement Services, Bank of England after 1.30 p.m. on Thursday, 11 March 1999 provided cleared funds have been credited to the Bank of England's Euro Treasury Bills Account No. 59005516 with Lloyds Bank Plc, Bank Relations, St George's House, PO Box 787, 6-8 Eastcheap, London EC3M 1LL. Definitive Bills will be available in amounts of €10,000, €100,000, €1,000,000 and €10,000,000 nominal.

7. Her Majesty's Treasury reserves the right to reject any or part of any application.

8. The arrangements for the auction are set out in more detail in the Information Memorandum on the UK Government Euro Treasury Bill programme issued by the Bank of England on behalf of Her Majesty's Treasury on 7 July 1998, and in supplements to the Information Memorandum. All applications will be subject to the provisions of the Information Memorandum (as supplemented) and to the provisions of this notice.

9. The €50 million of Bills to be allotted directly to the Bank of England for the account of the Exchange Equalisation Account will be for maturity on 16 September 1999. These Bills may be made available through sale and repurchase transactions to market makers in order to facilitate settlement.

10. Copies of the Information Memorandum may be obtained from the Manager, External Debt, Foreign Exchange Division at the Bank of England (telephone number 0171 601 5982). UK Government Euro Treasury Bills are issued under the Treasury Bills Act 1877, the National Loans Act 1968 and the Treasury Bills Regulations 1968 as amended.

Bank of England
2 March 1999

ABERFORTH SMALLER COMPANIES TRUST PLC

IN the Petition presented to the Court of Session on 24th February 1999 at the instance of Aberforth Smaller Companies Trust plc, a company incorporated under the Companies Acts and having its registered office at 14 Melville Street, Edinburgh for confirmation of reduction of capital, reduction of share premium account and reduction of Redemption Reserve, the Court has pronounced the following interlocutor:-

"26th February 1999 Lord Eassie

The Lord Ordinary appoints the Petition to be intimated on the Walls in common form and to be advertised once in the Edinburgh Gazette and once in each of The Scotsman and Financial Times Newspapers and allows all parties claiming an interest to lodge Answers thereto, if so advised, within 21 days after such intimation and service.

Ronald D Mackay"

of all which intimation is hereby given.

BRODIES, 15 Atholl Crescent, Edinburgh.
Solicitors for Petitioners.

COMMODITIES & AGRICULTURE

Little sign of relief seen for sugar

By Paul Solman

Sugar is set for a long haul at low prices as rising production and currency devaluations among exporters are likely to maintain the pressure on prices.

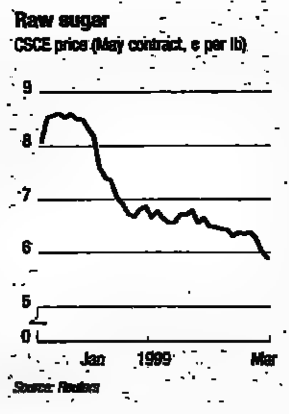
Raw sugar has been trading at its lowest for 12 years this week on the Coffee, Sugar and Cocoa Exchange in New York, and analysts said yesterday there was little sign of relief for the battered market.

The weak prices seem to be a part of a long-term trend. Global sugar production has outstripped consumption every year since 1994/95. Total output was 129.8m tonnes in 1998/99 compared with consumption of 125.2m tonnes.

However, recent events have added further pressure, exacerbating the downturn. "The first drop in prices came last year on signs there would be a huge cane crop in Brazil," said Lawrence Eagles, analyst at brokers GNI. "Prices had been trading around 9 cents but dropped to under 7 cents."

Brazil's sugar production rose to 18.8m tonnes in 1998/99 from 16m tonnes the previous season, according to brokers E.D.&F. Man, overtaking the European Union as the world's largest producer. Forecasts for the 1999/2000 season suggest the country's sugar output could rise again to 20m tonnes.

Part of the production increase in Brazil can be explained by farmers planting more cane. But there was also a significant shift from alcohol production to sugar, after a sharp rise in alcohol stocks prompted by deregulation of the market.



Also, although sugar prices had begun a modest recovery at the end of last year, Brazil's currency devaluation in January hit the market. "Before devaluation, Brazil's sugar production costs had been running at about 8.5 cents a pound in dollar terms. They're now around 5 cents a pound," Mr Eagles said.

"Currency problems among other big sugar growers such as Australia and Thailand have increased the pressure on prices," he said, adding that New York sugar prices could drop as low as 4.5 cents a pound if Brazilian production continued to rise.

The availability of substantially cheaper sugar on the export market has forced prices back down.

To make matters worse, growth in demand has fallen to below 1 per cent because of the economic problems in Asia, Russia and Latin America, analysis firm F.O. Licht said yesterday in its latest sugar market report. "If Brazilian production and exports should continue their relentless rise, there is no hope for remunerative export prices," F.O. Licht said.

The May contract for raw sugar on New York's CSCE was 5.95 cents a pound in late trading yesterday, compared with Monday's close of 6.02. May white sugar stood at $212.5 a tonne on the London International Financial Futures and Options Exchange, against Monday's $213.90.

Indian budget scheme to attract 'idle' gold

By Mark Nicholson in New Delhi

A gold deposit scheme outlined in the latest Indian budget could bring into the banking system "idle" gold of up to 100 tonnes a year, according to early industry estimates.

Under the proposed Gold Deposit Scheme, selected banks would be permitted for the first time to accept gold deposits – mostly jewellery and bullion held by individuals as a store of wealth – against which they would issue interest-bearing bonds. On maturity, the bonds could be redeemed for the weight of gold initially deposited.

Yashwant Sinha, finance minister, announced the scheme in last week's budget as a measure to help cut India's high gold imports, with a broader eye on the rising pressure facing the country's external accounts. India is the world's biggest buyer of gold, officially importing 614m tonnes last year.

The new scheme is also considered likely to herald further sophistication in India's domestic gold markets, encouraging banks to lend the metal and develop gold hedging instruments.

Pravinshankar Pandya, chairman of the Gems & Jewellery Export Promotion Council in Bombay, said he believed the scheme could reap up to 100 tonnes of gold a year, against current annual demand of more than 800 tonnes. Gold demand, including both imports and recycled gold, rose 11 per cent last year.

Mr Sinha gave no details of likely interest rates or tenures for the proposed bonds, but said they would be exempt from tax both on interest and capital gains.

He also made no estimate as to how much gold the scheme might glean from Indians, who for generations have cherished the metal as a safe, portable store of wealth – notably in rural areas. He only said he was confident of bringing large quantities of such gold into the system through the banks. "Domestic demand, the demand from jewellers, this is something we could meet out of a gold stockpile that we'll be able to create," he said after the budget.

Industry associations said the success of the scheme would depend entirely on the bonds' interest rates and the success of banks marketing the scheme. Many Indians, particularly in rural areas, hold gold and jewellery out of suspicion of financial institutions.

There is no accurate figure on the amount of gold in the country, but estimates range between 8,000 and 15,000 tonnes.

By way of some precedent, a one-off gold bond scheme launched by the Reserve Bank of India, the central bank, in 1993 attracted 41 tonnes of gold, based on a five-year bond bearing 2 per cent interest.

However, the new scheme would differ by offering a continuous deposit service,

Indians cherish gold as a safe, portable store of wealth

while also forcing banks to earn from the recovered gold enough to service the interest payments.

The latter is seen as encouraging gold lending to jewellery makers and eventually to the creation of hedging instruments and other gold-based financial products.

India's gold and silver imports surged in official accounts from $936m during the first nine months of the last fiscal year to $3.3bn between April and November 1998, chiefly resulting from the government's decision in November 1997 to permit 11 financial institutions legally to import and retail the metal.

However, concern over surging gold imports led the government to raise gold duties in January, a move criticised for reviving the smuggling of gold – the very thing the earlier decision to allow banks to import the metal was designed to curb.

World Gold Council officials in Bombay say the rise in duty has already led to shrinking imports in gold centres such as Ahmedabad, western India, noting also a surge in imports to Nepal, where the duty is lower.

Cocoa futures drop to new low

MARKETS REPORT

By Paul Solman, Gillian O'Connor and Robert Corzine

Cocoa futures dropped to a new low on the London International Financial Futures and Options Exchange yesterday.

Traders said the market's continuing weak fundamentals had prompted a bout of selling on the back of similar moves in New York. The benchmark May contract closed at £862 a tonne, £34 below Monday's close.

Robusta coffee futures, meanwhile, rose for the second day in a row on signs of a possible tightness in supplies. The May contract closed at $1,795 a tonne, $47 higher than Monday's finish.

Colombia, the world's second largest producer, said the 1998/99 crop was likely to be lower than expected because of heavy rain in the main coffee growing region.

On the London Metal Exchange, zinc was notably firm. Technical analysts were encouraged by Monday's "golden cross", which arises when the short-term moving average crosses up through the longer-term moving average when both have recently started to rise, and is considered one of the more reliable indicators of a change in trend.

Prices are now back to last August's levels but many say they may struggle to rise further while other metals stay weak.

Oil prices firmed yesterday after it emerged that the disruption to Iraqi oil exports through the pipeline to Turkey after attacks on two affiliated communication centres could be prolonged.

Brent Blend for April delivery was $10.90 a barrel in late trading on London's International Petroleum Institute, up 17 cents from Monday's close.

NEWS DIGEST

SHIPPING

Baltic Exchange to launch index for capesize vessels

The Baltic Exchange, the London-based international shipping market, is launching a new index of freight routes. The Baltic Capesize Index (BCI) will track the rates for capesize vessels, the largest dry bulk cargo vessels, which carry commodities such as iron ore, coal and grain.

The BCI, to be published daily from next month, is part of a shake-up of the exchange's indices, which saw the launch in December of the Baltic Panamax Index of medium-sized dry cargo routes. The Baltic Handy Index, which tracks smaller dry cargo vessels, will also be published daily from next month instead of the current twice weekly.

The Baltic Freight Index (BFI), which includes both panamax and capesize vessels, will cease to be compiled after October this year. "The BFI will be unnecessary as we now have three separate indices for the three main types of dry cargo vessel," Jim Buckley, chief executive of the Baltic Exchange, said yesterday. However, he added that the exchange would probably launch a composite index representing all three sizes of vessel.

The indices provide indicators of rates for moving cargoes on the main sea routes and are used to settle freight futures, such as the London International Financial Futures and Options Exchange's Biffex contract. **Paul Solman**

METALS

LG Group to sell offshoot

South Korea's LG Group is to sell one of its most troubled businesses, debt-heavy LG Metals, to a new 50:50 joint venture with Japan's Nippon Mining and Metals for $638m. The deal, expected to be finalised by mid-year, would create one of the world's largest producers of copper cathodes with annual output of 900,000 tonnes.

The joint venture is expected to increase Nippon Mining's ability to set prices in the world copper market. Nippon Mining will form a consortium with Mitsui Mining and Smelting and Marubeni Corporation for the deal.

LG has been selling stakes in businesses to foreign partners to reduce its debt/equity ratio to 200 per cent by the end of this year. The new joint venture would include LG Metals' core copper smelting and refining operations in Korea. LG Metal also agreed to transfer its working capital to the joint venture for an additional charge, which would raise the value of the deal to $800m. **John Burton, Seoul**

WOOL

Australian exports fall 30%

Australian wool exports fell almost 30 per cent in the year to January according to Woolmark. In terms of value, exports fell by 29 per cent to A$2.8bn, while in volume terms, exports declined 20.4 per cent to 534.9m kg. In greasy equivalent terms, exports dropped 19.4 per cent to 632.8m kg. China remained the largest export market for Australian wool, taking 117.6m kg, down 22.4 per cent from the previous year. **Reuters, Sydney**

COMMODITIES PRICES

BASE METALS

LONDON METAL EXCHANGE (Prices from Amalgamated Metal Trading)

ALUMINIUM, 99.7 PURITY ($ per tonne)

	Cash	3 mths
Close	1147-8	1169-70
Previous	[illegible]	[illegible]
High/low	[illegible]	[illegible]
AM Official	1143-44	[illegible]
Kerb close		1169-70
Open int.	[illegible]	
Total daily turnover	[illegible]	

ALUMINIUM ALLOY ($ per tonne) — LEAD ($ per tonne) — NICKEL ($ per tonne) — TIN ($ per tonne) — ZINC, special high grade ($ per tonne) — COPPER, grade A ($ per tonne) — LME AM Official £/$ rate — LME Closing £/$ rate

[illegible]	[illegible]

HIGH GRADE COPPER (COMEX)

[illegible]	[illegible]

PRECIOUS METALS

LONDON BULLION MARKET (Prices supplied by N M Rothschild)

[illegible]	[illegible]

Precious Metals continued

GOLD COMEX (100 Troy oz.; $/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	286.9	-	285.0	286.0	2	59
Apr	[illegible]	+0.3	290.5	[illegible]	21,078	109k
Jun	289.8	+0.3	292.5	289.0	2,317	24,638
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

PLATINUM NYMEX (50 Troy oz.; $/troy oz.) — PALLADIUM NYMEX (100 Troy oz.; $/troy oz.) — SILVER COMEX (5,000 Troy oz.; Cents/troy oz.)

[illegible]	[illegible]

ENERGY

CRUDE OIL NYMEX (1,000 barrels, $/barrel) — CRUDE OIL IPE ($/barrel) — HEATING OIL NYMEX (42,000 US galls; c/US galls) — GAS OIL IPE ($/tonne) — NATURAL GAS NYMEX (10,000 mmBtu; $/mmBtu) — UNLEADED GASOLINE NYMEX (42,000 US galls; c/US galls)

[illegible]	[illegible]

GRAINS AND OIL SEEDS

WHEAT LIFFE (100 tonnes; £ per tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	72.00	+0.30	72.00	72.00	27	86
May	74.25	+0.25	74.25	73.50	69	3,487
Jul	76.25	+0.50	75.40	75.40	10	1,270
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

WHEAT CBT — MAIZE CBT — BARLEY LIFFE — SOYABEANS CBT — SOYABEAN OIL CBT — SOYABEAN MEAL CBT — POTATOES LIFFE — FREIGHT (BIFFEX) LIFFE

[illegible]	[illegible]

PULP AND PAPER

PULPEX OMLX (US$; 24 air dry tons)

[illegible]	[illegible]

FUTURES DATA: All futures data supplied by CMS

SOFTS

COCOA LIFFE (10 tonnes; £/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	869	-30	900	875	128	5,662
May	863	-35	900	862	4,956	50,596
Jul	882	-33	916	863	450	15,011
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

COCOA CSCE — COCOA (ICCO) — COFFEE LIFFE — COFFEE 'C' CSCE — COFFEE (ICO) — WHITE SUGAR LIFFE — SUGAR '11' CSCE — COTTON NYCE — ORANGE JUICE NYCE

[illegible]	[illegible]

VOLUME DATA: Open interest and Volume data shown for contracts traded on COMEX, NYMEX, CBT, NYCE, CME, CSCE and IPE Crude Oil are one day in arrears. Volume & Open interest totals are for all traded months.

INDICES

Reuters (Base: 18/9/31 = 100) — CRB Futures (Base: 1967 = 100) — GSCI Spot (Base: 1970 = 100)

LME WAREHOUSE STOCKS (tonnes)

[illegible]	[illegible]

Tea from the Tea Brokers' Association Mombasa: There was a good demand. Apart from a few selected lines, brighter BP1's were irregularly easier. Mediums however sold at firm to dearer rates. Neater lower mediums were a few cents dearer but fibrous sorts were easier and often neglected. Plainer sorts were easier. Brighter PF1's were irregularly easier with colory mediums overall barely steady to a little easier. Lighter/brighter and lower medium types however appreciated by about 3 to 15 cents. Plainer sorts sold at firm to dearer rates. Some selected lines of brighter pdusts showed substantial gains but others sold at irregularly easier rates.

MEAT AND LIVESTOCK

LIVE CATTLE CME (40,000lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
Apr	67.700	-0.550	68.450	67.650	6,524	54,577
Jun	65.450	-0.075	65.900	65.325	2,736	31,459
Aug	63.850	-0.250	64.300	63.825	709	14,694
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

LEAN HOGS CME (40,000lbs; cents/lbs) — PORK BELLIES CME (40,000lbs; cents/lbs)

[illegible]	[illegible]

LONDON TRADED OPTIONS

ALUMINIUM (99.7%) LME — COPPER (Grade A) LME — COFFEE LIFFE — COCOA LIFFE — BRENT CRUDE IPE

[illegible]	[illegible]

LONDON SPOT MARKETS

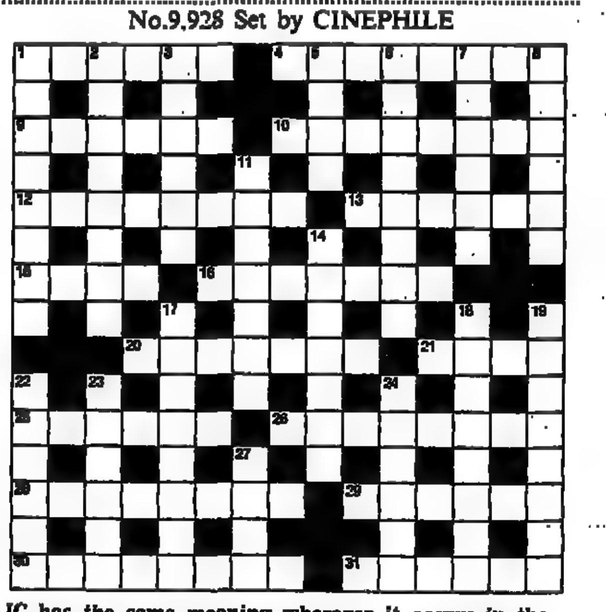
CRUDE OIL FOB (per barrel) — OIL PRODUCTS NWE prompt delivery CIF (tonne) — NATURAL GAS (Pence/therm) — OTHER

[illegible]	[illegible]

JOTTER PAD

CROSSWORD

No.9,928 Set by CINEPHILE



IC has the same meaning wherever it occurs in the clues: ICs are different in English (or in the case of 11 French). Solutions may be in either, and clues do not necessarily lead to the version to be entered in the diagram.

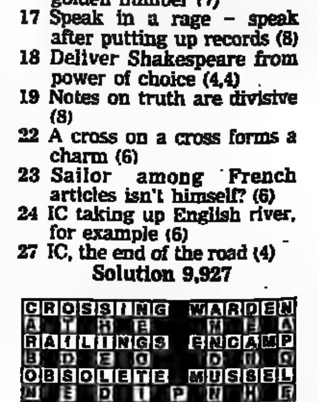
ACROSS

1 IC for writing on eggs (6)
4 TUC's involved with a spy – so what's new? (5-3)
9 IC guy I left inside (6)
10 IC girl (8)
12 Company swallowed by wealthy Parisian has time to bounce back (8)
13 Stop and speak about Greek island do (6)
15 Highly strung predator? (4)
16 Originally a lot of races went round trees (2,5)
20 View of relation surrounded by vegetable (7)
21 Song with a melody backing (4)
25 IC's mother upsetting aunt (6)
26 Concern with rates? (8)
28 Offering of freedom if the Queen is included (8)
29 IC in love on a hill (6)
30 Ideas of politicians with explosive contents (8)
31 From right to left I cut an IC (6)

DOWN

1 Euro-politician overturned and damaged table (8)
2 Tactful lie acted out (8)
3 IC giving directions in wrongdoing (6)
5 Bad guy entertaining novice – I don't like the look of it (4)
6 Teacher to bill America for IC – this is also in America (8)
7 Chinese part of Switzerland (6)
8 IC, river of council (6)
11 IC people with quality (7)
14 IC – parts of beast – 54 – golden number (7)
17 Speak in a rage – speak after putting up records (8)
18 Deliver Shakespeare from power of choice (4,4)
19 Notes on truth are divisive (8)
22 A cross on a cross forms a charm (6)
23 Sailor among French articles isn't himself? (6)
24 IC taking up English river, for example (6)
27 IC, the end of the road (4)

Solution 9,927



For solutions to today's crossword call 0906 843 0060. Calls cost 60p a minute.

FT MANAGED FUNDS SERVICE

● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (+44 171) 873 4378 for more details.

OFFSHORE AND OVERSEAS

BERMUDA
(FSA RECOGNISED)

Fidelity Currency Funds Ltd

BERMUDA
(REGULATED)(**)

Butterfield Funds

CAYMAN ISLANDS
(REGULATED)(**)

Adelphi Europe Fund

Africa Emerging Markets Fund

Allegro Capital Limited

GUERNSEY
(REGULATED)(**)

GUERNSEY
(FSA RECOGNISED)

IRELAND
(FSA RECOGNISED)

IRELAND
(REGULATED)(**)

ISLE OF MAN
(FSA RECOGNISED)

ISLE OF MAN
(REGULATED)(**)

JERSEY
(FSA RECOGNISED)

Offshore Funds and Insurances

FT MANAGED FUNDS SERVICE

● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (+44 171) 873 4378 for more details.

Barclays International Funds - Contd.

Gartmore Fund Managers Intl Ltd

Hill Samuel Fund Mgrs (Jsy) Ltd

Lloyds Bank (CI) U/T Mgrs.

Lloyds TSB Fund Managers (CI) Ltd

Midland Bank Fund Managers (Jersey) Ltd

Newton Fund Managers (CI) Ltd

Northgate Unit Tst. Mngr. (Jersey) Ltd

Royal Bank of Scotland Fund Managers (CI) Ltd

Royal Bk of Scotland Fd Mngrs (Jersey) Ltd

SG Hambros Fund Managers (Jersey) Ltd

Standard Bank Fund Mgmt (Jersey) Ltd

Worldinvest (Managers) Jersey Ltd

JERSEY (REGULATED)(**)

LUXEMBOURG (FSA RECOGNISED)

Fidelity Funds - Contd.

Lloyds Bank Luxembourg - Contd.

Schroder International Selection Fd - Contd.

Banque Internationale A Luxembourg

Henderson Independent Fund

International Bond Trust

INVESCO International Limited

InverSud Investment Fund SICAV

Investissements Atlantiques SA

JP Morgan

Julius Baer Group

Scudder Global Opportunities Funds - Contd.

LUXEMBOURG (REGULATED)(**)

OFFSHORE INSURANCES

هكذا من الأصل

FT MANAGED FUNDS SERVICE

Offshore Insurances and Other Funds

● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (+44 171) 873 4378 for more details.

OTHER OFFSHORE FUNDS

LONDON SHARE SERVICE

ALCOHOLIC BEVERAGES

	Notes	Price	+ or –	52 week high	52 week low	Volume '000s	Yld Gr's	P/E
Allied Domecq	N	477	+4	646	385	3,998	5.3	12.5
Bulmer (HP)		296	—	399	279½	–	6.6	12.8
Burn Stewart		12½	—	30½	7	12	–	–
Diageo	♣N	695½	+6	798	476	4,392	2.8	21.0
Glenmorangie A	†	720	—	900	625	–	2.6	19.6
B	†	827½	—	990	810	–	1.1	44.9
Highland		245½	–1	329	228	172	4.8	11.2
5¼pc Cv Sb Bd		98½	—	100½	90½	–	5.9	–
Kirin Y		[illegible]	–29	814¼	457¼	–	0.8	54.8
Merrydown		27	[illegible]	54½	18½	21	–	Φ
Seagram C$		[illegible]	[illegible]	[illegible]	[illegible]	–	0.9	–

BANKS, RETAIL

	Notes	Price	+ or –	52 week high	52 week low	Volume '000s	Yld Gr's	P/E
ABN Amro Fl		[illegible]	[illegible]	[illegible]	[illegible]	–	3.2	15.0
ANZ A$		[illegible]	[illegible]	[illegible]	[illegible]	–	5.1	Φ
Abbey National	♣♦	[illegible]	[illegible]	1389	860	1,977	3.2	16.7
Alliance & Leicester	♣♦	[illegible]	–5	998	683	2,691	3.3	14.5
Allied Irish I£		[illegible]	–16	1262½	702	–	2.3	Φ
Anglo Irish I£	♣†	[illegible]	–3	191½	118	66	3.1	16.3
Asahi Y		[illegible]	–14½	[illegible]	140	–	1.2	–
Banco Bilbao Viz Pta		[illegible]	[illegible]	[illegible]	[illegible]	–	1.8	11.3
Banco Santander Pta	†	[illegible]	[illegible]	[illegible]	[illegible]	–	2.5	12.7
Bank Ireland I£	†	1212½	[illegible]	1487½	662½	–	2.3	19.8
Bank Scotland	♣†	[illegible]	–4	949	457	2,352	1.5	22.3
9¼pc Ird Pf		171	—	174	152¼	–	6.8	–
9⅜pc Ird Pf		174	—	[illegible]	160½	–	7.0	–
Bk of Tokyo Mitsubishi Y		[illegible]	[illegible]	[illegible]	[illegible]	–	0.6	Φ

BREWERIES, PUBS & REST

BUILDING MATS. & MERCHANTS

CHEMICALS

CONSTRUCTION

CONSTRUCTION - Continued

DISTRIBUTORS

DIVERSIFIED INDUSTRIALS

ELECTRICITY

ELECTRONIC & ELECTRICAL EQPT

ENGINEERING

ENGINEERING - Continued

ENGINEERING, VEHICLES

EXTRACTIVE INDUSTRIES

FOOD PRODUCERS

FOOD PRODUCERS - Continued

GAS DISTRIBUTION

HEALTH CARE

HEALTH CARE - Continued

HOUSEHOLD GOODS & TEXT

INSURANCE

INSURANCE - Continued

INVESTMENT TRUSTS

Approved by the Inland Revenue

INVESTMENT TRUSTS - Continued

INV TRUSTS SPLIT CAPITAL

Approved by the Inland Revenue

LONDON SHARE SERVICE

OTHER INVESTMENT TRUSTS

The following investment trusts are not eligible for inclusion in the FTSE Actuaries Share Indices.

[illegible]

INVESTMENT COMPANIES

[illegible]

INVESTMENT TRUSTS SPLIT CAPITAL

[illegible]

LEISURE & HOTELS

[illegible]

LIFE ASSURANCE

[illegible]

MEDIA

[illegible]

MEDIA - Continued

[illegible]

OIL EXPLORATION & PRODUCTION

[illegible]

OIL, INTEGRATED

[illegible]

OTHER FINANCIAL

[illegible]

PAPER, PACKAGING & PRINTING

[illegible]

PHARMACEUTICALS

[illegible]

PROPERTY

[illegible]

PROPERTY - Continued

[illegible]

SUPPORT SERVICES

[illegible]

PROPERTY - Continued

[illegible]

SUPPORT SERVICES - Continued

[illegible]

RETAILERS, FOOD

[illegible]

RETAILERS, GENERAL

[illegible]

TELECOMMUNICATIONS

[illegible]

TOBACCO

[illegible]

TRANSPORT

[illegible]

TRANSPORT - Continued

[illegible]

WATER

[illegible]

AMERICANS

[illegible]

CANADIANS

[illegible]

SOUTH AFRICANS

[illegible]

TRADED INDEX SECURITIES

[illegible]

AIM

Alternative Investment Market

The Alternative Investment Market, designed primarily for small companies, is regulated by the London Stock Exchange but has less demanding rules than the Official List.

[illegible]

AIM - Continued

[illegible]

GUIDE TO LONDON SHARE SERVICE

Prices and trading volumes for the London Share Service are delivered by Financial Times Information.

Company classifications are based on those used for the FTSE Actuaries Share Indices.

Closing mid-prices are shown in pence unless otherwise stated. For FTSE 100 index constituents and reserves contained in the Trading Volume table on the LSE page, last trade prices at or prior to 4:30pm market close are shown, as these shares are now traded on the Stock Exchange Electronic Trading System ("SETS"). Highs and lows are based on intra-day mid-prices/last trades over a rolling 52 week period.

Trading Volumes are end of day accumulated totals. Dashes indicate that either no trade has taken place during the day or the data is not available for those particular securities. Volumes shown for foreign securities are based on London trading.

Where stocks are denominated in currencies other than sterling, this is indicated after the name. Prices shown for some of these foreign securities are converted into sterling from latest available local Stock Exchange prices.

Symbols referring to dividend status appear in the notes column daily as a guide to yields and P/E ratios. Dividends and Dividend covers are published on Monday.

Earnings used in calculations are based on IIMR 'Headline Earnings' formula.

Price/earnings ratios are based on latest annual reports and accounts and, where possible, are updated on interim figures.

Yields are based on mid-prices, are gross, adjusted for a dividend tax credit of 20 per cent (except where payment is due after 5/4/99 when no tax credit will be applied) and allow for the value of declared distribution and rights.

Estimated Net Asset Values (NAVs) are shown for Investment Trusts, in pence per share, along with the percentage discounts (Dis) or premiums (Pm +) to the current closing share price. The NAV basis assumes prior charges at par value, convertibles converted and warrants exercised if dilution occurs.

- * Highs and lows marked thus have been adjusted to allow for capital changes.
- † Interim since increased or resumed
- ‡ Interim since reduced, passed or deferred
- ♦ Figures or report awaited
- ♥ Rule 2.1(a)(iv) Overseas incorporated companies listed on an approved exchange.
- ♣ Free annual/interim report available, see details below.
- †† Rule 4.2(a) Irish incorporated non-listed companies.
- # Price at time of suspension
- , Indicated dividend yield after pending scrip and/or rights issue
- ♦ Merger bid or reorganisation in progress
- ♦ Forecast dividend yield; p/e based on earnings updated by latest interim statement.
- ♠ Unregulated collective investment scheme.

a Yield based on amalgamated dividend. b Figures based on prospectus or other official estimates. f Dividend/yield adjusted yield, p/e ratio based on latest annual earnings. a Forecast, or estimated annualised dividend yield, p/e based on previous year's earnings. y Dividend/yield includes amount payable after 6/4/99. z Dividend yield includes a special payment. F Yield based on prospectus or other official estimates for 1998. L Estimated annualised yield, p/e based on latest annual earnings. M Yield based on prospectus or other official estimates for 1997-98. H Dividend is paid in whole or part as a FID Foreign Income Dividend.

Abbreviations: , ex dividend; , ex scrip issue; , ex rights; , ex all; , ex capital distribution

This service is available to companies whose shares are regularly traded in the United Kingdom for a fee of £1570 a year for each security shown, subject to the Editor's discretion

LONDON STOCK EXCHANGE

Footsie limps forward ahead of rate decision

MARKET REPORT

By Steve Thompson, UK Stock Market Editor

London's equity market remained dogged by uncertainty over the outlook for UK and US interest rates yesterday, spending most of the morning session in negative territory.

After an afternoon tussle between bears and bulls, the FTSE 100 index settled a net 0.4 firmer at 6,061.3. At its best, Footsie posted a 28.7 gain while, at its lowest ebb around lunchtime, it was down more than 27 points.

Wall Street did its best to invigorate a flagging London market, with the Dow Jones Industrial Average following up Monday's 18-point rise with an 80-point gain 30 minutes after the London close.

Increasing the market's early discomfort was the decision by Merrill Lynch, one of the most powerful influences in global markets, to lop 200 points off its end-1999 FTSE 100 target, from 6,300 to 6,100.

Merrill's strategy team cited the recent rise in bond yields as imposing valuation strains on its previous forecast. US bond yields have been moving significantly higher in the past few weeks amid concerns that the continuing rapid pace of economic growth might push the US Federal Reserve into nudging US rates higher.

Khuram Chaudhry at Merrill insisted: "We have not turned bearish on the London market which globally is still attractive."

The next meeting of the US Federal Reserve's open market committee, which determines interest rate policy, takes place on March 30.

Dealers in London said there was increasing nervousness over the outcome of the two-day meeting of the Bank of England's monetary policy committee which finishes this morning. The committee's decision will be announced at noon today.

The general feeling was that the committee would leave rates on hold for the time being, having cut for five consecutive months, although some still expect a 25 basis points reduction.

Tuesday's Budget was also seen as causing increasing nervousness. The strategy and economics team at ABN-Amro took the view that the Budget "is likely to be a micro-economic affair".

It added: "We expect a broadly neutral package with the focus on piecemeal tax changes designed to progress towards the chancellor's pet aspirations: a 'fairer society' and boosting enterprise and productivity growth".

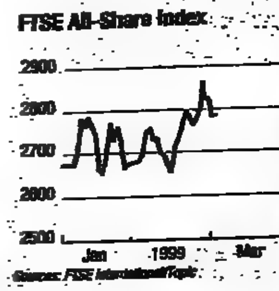
A clear illustration of market uncertainty was the performance of the banks. Heavily sold on Monday, Royal Bank of Scotland figured in the top three performers in the FTSE 100 yesterday, with good performances also forthcoming from Lloyds TSB and NatWest.

There was a more positive feel to the midcaps, with many of the housebuilders – notably Beazer, Wilson Bowden and Wimpey – racing ahead just before the close, despite the uncertainty over UK interest rates. The 250 index finished 18.9 higher at 5,277.3, its eighth straight winning performance.

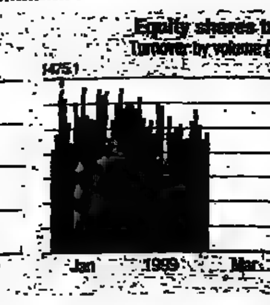
The FTSE SmallCaps, on the other hand, were a disappointment, the seven-day sequence of gains finally grinding to a halt.

The FTSE SmallCap, in negative territory throughout the session, closed 2.3 off at 2,276.3. Turnover was 986.4m shares.

FTSE All-Share Index



Equity shares traded



Source: FTSE International/Topic

Indices and ratios

FTSE 100	6061.3	+0.4	FT 30	3714.3	+10.0
FTSE 250	5277.3	+18.9	FTSE Non-Fins p/e	23.82	23.87
FTSE 350	2880.4	+1.8	FTSE 100 Fut Mar	6067.0	+0.0
FTSE All-Share	2785.55	+1.49	10 yr Gilt yield	4.76	4.82
FTSE All-Share yield	2.81	2.75	Long gilt/equity yld ratio	1.74	1.74

Best performing sectors

1. Electronic & Elect Equip +2.4
2. Insurance +2.0
3. Construction +1.6
4. Property +1.4
5. Healthcare +1.3

Worst performing sectors

1. Support Services −2.9
2. Oil: Integrated −1.5
3. Resources −1.3
4. Retailers: General −1.1
5. Tobacco −1.0

Alliance talk aids Reuters

COMPANIES REPORT

by Peter John, Joel Kibazo and Martin Brice

Reuters Group benefited from a news report that it is holding talks with two US stock exchanges about possible alliances. The shares gained 17½ to 862½p.

The global news and financial information company confirmed yesterday: "We have an ongoing dialogue with both organisations (Nasdaq and the New York stock exchange) at a senior level on a range of subjects."

The discussions focus on the role of Instinet, Reuters' electronic broking arm, in any global expansion for the US exchanges.

Instinet already represents 15 per cent of Reuters' revenue and some brokers argue that any alliance could catapult the business to a different level.

Brian Newman of Henderson Crosthwaite commented: "Instinet is technically a broker but it is beginning to look more and more like an international order-driven exchange in its own right. It would be an obvious partner for the NYSE."

Any move would put pressure on European exchanges which have been examining ways to extend and harmonise trading hours in order to fight the threat of a globally accessible US market open throughout the European and Asian trading day.

The London Stock Exchange is considering starting at 8am, having only recently put back its opening to 9am.

Sellers gained the upper hand in Colt Telecom leaving the shares trailing 50½ to £11.36½ in trade of 2.7m.

The team at Charterhouse Tilney yesterday advised investors to reduce holdings.

A note to clients said: "Colt's 1998 results were overshadowed by another request for cash just eight months after the last. In addition, the move to link the local operations across Europe diminishes some of the strategic appeal to any potential bidder seeking to implement such synergies themselves."

They added: "Colt is a well managed business but is trading well above our fundamental value of 920p. Telecoms fever has now taken over and this level of premium is hard to justify."

Arriva reacted positively to the performance by new chief executive Bob Davies, although the company's results just managed to achieve the consensus of expectations, which was £94.8m. The stock, which reached 513p early last year before profit warnings took their toll, gained 14½ to 391½p, with one analyst saying: "Bob Davies was the antithesis of the old management. It was an impressive performance."

The analyst added that the stock, which has suffered under the weight of profit warnings linked to the residual value of used cars, would probably enjoy a re-rating when Arriva sold its leasing arm, leaving it focused on public transport.

The company's strategy of moving away from vehicle sales highlights weakness in the car market that Pendragon mentioned when it reported final figures on Monday. Pendragon, which was at 313p early last year, closed a penny easier at 196½p.

Mayflower recovered from weakness caused by two large sell orders that arrived in the market as the results were unveiled on Monday, helped by a strong "buy" note from Raymond Greaves, engineering analyst at Merrill Lynch.

He has visited the Dennis operations that Mayflower bought last year, and shifted from "accumulate" to "buy" while increasing his forecasts by 15 per cent and setting his share price target at 200p. The shares rose 11 to 166p amid brisk trade of 10m.

His increases to forecasts stem from expectations of a lower interest charge, good organic growth and the prospect of the sale of the specialist vehicle side.

Mayflower yesterday emphasised its growth prospects in the US by announcing a joint venture with DaimlerChrysler to build low-floor buses.

Glaxo rises

Shares in Glaxo Wellcome rose 12 to £19.38 with some support from news that the company had applied for European regulatory approval to market Zyban its medicine for the treatment of nicotine dependence.

Meanwhile Zeneca shed 12 to £25.19 with no benefits accruing from an analysts' visit to the company's agro-chemicals operations.

Rentokil Initial suffered the worst performance in the Footsie as it failed to achieve expectations held by some analysts that it would meet its self-imposed target of 20 per cent earnings growth. The shares were off almost 11 per cent, or 48 at 400½p. A few weeks ago they were at 477p. However, the strength of sterling was the main reason that the company missed its growth target.

Prospects that the five-year squeeze on insurance rates might be easing gave a boost to a number of companies in the sector.

CGU, which is perhaps the most obvious non-life play, jumped 43 to 928p, the best performance among Footsie stocks. And Royal & Sun Alliance followed closely in percentage terms with a gain of 21½ to 533½p.

Analysts took heart from comments made with the latest figures from Norwich Union, up 5 at 451½p and Jardine Lloyd Thompson, up 12 at 182p.

However, Roman Cizdyn of Merrill Lynch said it was probably too early to start celebrating. "Some of the very heavy rate reductions are lessening, especially in the general lines [car and household insurance] but I haven't heard of anyone talking of raises."

GRE is the most geared play. Nick Bunker of HSBC Securities, said: "There is evidence of private motor rates going up but from a low level. The rise underlines the extent to which Guardian was acquired at too cheap a price." GRE was steady at 350p.

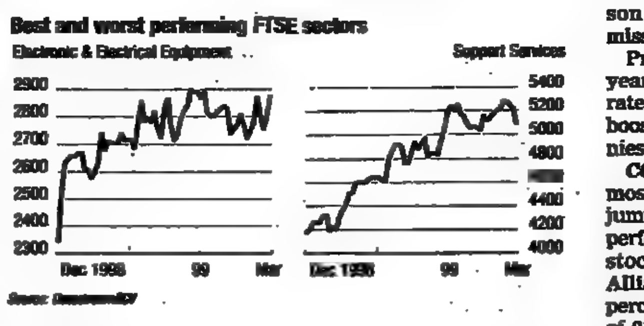
Shares in British catering company Compass Group declined 44½ or 5.6 per cent to 746½p as investors switched out of the stock and into a newly issued euro exchangeable bond from Accor, the French hotels group. Accor said the bond forms part of its plan to sell off its 4.9 per cent holding in Compass.

A report that spirits group Allied Domecq is working towards a demerger helped the shares rise 4 to 477p. Those of rival Diageo rose 6 to 695½p.

Profit-taking in tour operator First Choice left the shares 2½ off at 177½p as dealers speculated about suitors for the British group.

Best and worst performing FTSE sectors

Electronic & Electrical Equipment / Support Services



Source: Datastream/ICV

FT 30 INDEX

	Mar 2	Mar 1	Feb 26	Feb 25	Feb 24	Yr ago	*High	*Low
FT 30	3714.3	3704.3	3780.3	3771.4	3771.3	3896	4004.9	2780.6
Ord. div. yield	2.81	2.82	2.77	2.75	2.78	3.01	4.22	2.72
P/E ratio net	22.56	22.46	22.80	23.05	22.85	23.52	25.41	15.80
P/E ratio nil	22.49	22.40	22.83	22.96	22.78	23.32	25.19	15.71

FT 30 since compilation: high 4004.9 [illegible]; low 49.4 [illegible]. Base Date: 1/7/35

FT 30 hourly changes

9	10	11	12	13	14	15	16	High	Low
3704.3	3716.5	3712.6	3708.1	3704.9	3720.7	3723.7	3715.1	3730.5	3694.7

STOCK MARKET TRADING DATA

	Mar 2	Mar 1	Feb 26	Feb 25	Feb 24	Yr ago
SEAQ bargains	74,855	80,169	83,237	86,811	86,514	n/a
Equity turnover (£m)†	-	3278.1	4248.0	3963.2	4076.2	n/a
Equity bargains†	-	67,671	69,551	64,887	[illegible]	n/a
Shares traded (m)†	-	810.9	961.8	897.3	914.3	n/a
Total market bargains‡	-	[illegible]	67,152	81,308	-	-
Total turnover (£m)‡	-	4263.2	5604.8	6238.8	-	-
Total shrs traded (m)‡	*987.4	1002.6	1223.9	1141.8	-	-
Tradepoint turnover (£m)	[illegible]	16.5	26.6	35.0	41.4	31.3
Tradepoint shrs traded(m)	14.0	7.2	10.6	13.1	13.1	10.1

†Excluding intra-market and overseas turnover but including Crest turnover. *UK only total at 6pm. ‡ UK plus intra-market turnover.

London market data

Rises and falls*		52 Week highs and lows		LIFFE Equity options	
Total Rises	614	Total Highs	41	Total contracts	31,645
Total Falls	892	Total Lows	42	Calls	15,329
Same	1,548			Puts	16,316

Mar 2. *Data based on Equity shares listed on the London Share Service.

FUTURES AND OPTIONS

FTSE 100 INDEX FUTURES (LIFFE) £10 per full index point

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Mar	6105.0	6062.0	-5.0	6132.0	6033.0	28938	168951
Jun	6148.0	6100.5	-5.0	6168.0	6078.0	4589	24110
Sep	6148.0	6145.0	-5.0	6148.0	6148.0	20	2276

FTSE 250 INDEX FUTURES (LIFFE) £10 per full index point

[illegible]

FTSE 100 INDEX OPTION (LIFFE) (*6061) £10 per full index point

[illegible]

EURO STYLE FTSE 100 INDEX OPTION (LIFFE) £10 per full index point

[illegible]

LONDON RECENT ISSUES: EQUITIES

[illegible]

RIGHTS OFFERS

[illegible]

FTSE GOLD MINES INDEX

[illegible]

FTSE Actuaries Share Indices — The UK Series

Produced in conjunction with the Faculty and Institute of Actuaries

	£ Stg Mar 2	Day's chge%	Euro Index	£ Stg Mar 1	Year ago	Gross yld%	Net yld%
FTSE 100	6061.3	—	6980.6	6060.9	5807.7	2.83	2.34
FTSE 250	5277.3	+0.4	6077.7	5258.4	[illegible]	3.18	2.78
FTSE 250 ex Inv Tr	[illegible]	+0.4	[illegible]	5290.1	5318.0	3.30	2.90
FTSE 350	2880.4	+0.1	3317.3	2878.8	2780.0	2.71	2.41

[illegible]

FTSE Actuaries Industry Sectors

[illegible]

Hourly movements

[illegible]

TRADING VOLUME

Major Stocks yesterday

[illegible]

FTSE INTERNATIONAL

Highs & Lows shown on a 52 week basis

WORLD STOCK MARKETS

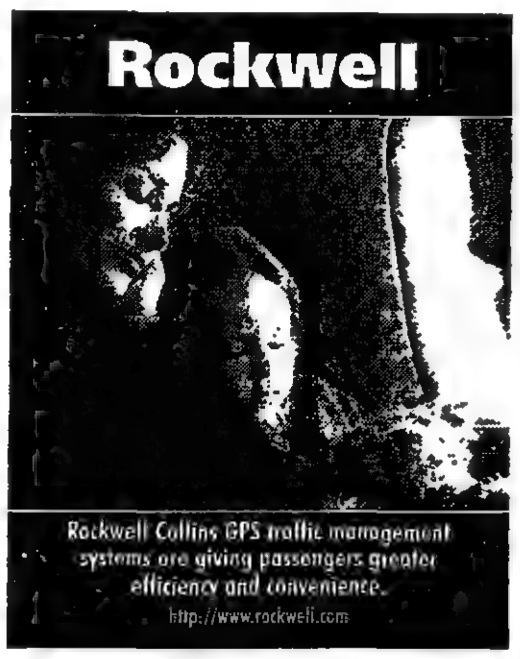
EUROPE (EMU) Prices in €

EUROPE (NON-EMU)

PACIFIC

AFRICA

AMERICAS



FT/S&P ACTUARIES WORLD INDICES

The FT/S&P Actuaries World Indices are owned by FTSE International Limited, Goldman, Sachs & Co. and Standard & Poor's. The Indices are compiled by FTSE International and Standard & Poor's in conjunction with the Faculty of Actuaries and the Institute of Actuaries.

NATIONAL AND REGIONAL MARKETS Figures in parentheses show number of lines of stock	MONDAY MARCH 1 1999 US Dollar Index	Day's Change %	Pound Sterling Index	Yen Index	Euro Index	Local Currency Index	Local % chg on day	Gross Div. Yield	FRIDAY FEBRUARY 26 1999 US Dollar Index	Pound Sterling Index	Yen Index	Euro Index	Local Currency Index	DOLLAR INDEX 52 week High	52 week Low	Year ago (approx)
Australia (75)	206.11	0.6	190.06	155.59	217.07	221.64	1.0	3.33	204.80	189.53	153.60	214.84	219.36	219.98	163.86	213.31
Austria (21)	180.32	-1.2	166.28	136.12	167.57	167.57	-0.8	1.99	182.51	168.90	136.88	168.94	168.94	253.73	165.27	206.14
Belgium (22)	377.24	-2.3	347.88	284.78	343.23	343.23	-1.9	1.96	386.11	357.32	289.58	349.93	349.93	446.95	278.30	282.16
Brazil (29)	100.85	3.7	93.00	76.13	106.22	380.57	2.4	6.10	97.27	90.01	72.95	102.04	371.51	269.34	89.32	237.60
Canada (113)	197.92	-0.9	182.51	149.41	208.44	217.85	-0.2	1.82	199.75	184.86	149.81	209.55	218.34	248.78	158.94	227.39
Denmark (34)	439.20	-1.6	405.01	331.55	462.55	406.16	-1.3	1.76	446.55	413.25	334.92	468.45	411.33	537.33	420.12	459.39
Finland (29)	595.51	-1.3	549.16	449.55	679.62	679.62	-0.9	1.67	603.60	558.58	452.70	686.13	686.13	861.25	338.49	353.20
France (74)	307.15	-1.8	283.24	231.87	289.06	289.06	-1.3	2.12	312.30	289.01	234.23	292.74	292.74	354.45	253.86	266.17
Germany (55)	247.64	-3.1	228.36	186.94	230.30	230.30	-2.7	1.67	255.46	236.41	191.60	236.64	236.64	325.61	226.35	252.73
Greece (36)	407.83	-0.2	376.09	307.87	429.52	860.07	0.1	0.99	408.84	378.35	306.63	428.88	858.98	429.65	211.47	–
Hong Kong, China (65)	288.72	1.6	266.25	217.96	304.06	287.18	1.6	4.25	284.26	263.06	213.20	298.20	282.76	382.55	196.64	382.55
Indonesia (24)	48.09	-0.7	44.34	36.30	50.64	260.63	-0.8	1.71	48.43	44.82	36.33	50.81	262.59	64.52	19.04	50.18
Ireland (14)	535.24	-1.3	493.58	404.05	543.24	543.24	-0.9	1.85	542.14	501.71	406.61	548.08	548.08	605.85	386.15	486.95
Italy (53)	163.94	-1.4	151.18	123.76	216.82	216.82	-1.0	1.49	166.27	153.87	124.70	219.03	219.03	192.84	128.88	136.08
Japan (445)	96.71	-1.8	89.18	73.01	101.85	73.01	-1.2	1.02	98.50	91.16	73.88	103.33	73.88	107.62	76.83	104.87
Mexico (29)	1228.60	-0.4	1132.97	927.47	1293.93	13309.30	-0.8	1.92	1233.04	1141.09	924.78	1293.50	13420.79	1733.73	787.15	1591.44
Netherlands (26)	479.36	-2.0	442.05	361.87	440.97	440.97	-1.6	2.17	489.02	452.56	366.77	448.09	448.09	562.73	394.92	458.15
New Zealand (18)	63.12	-1.9	58.20	47.65	66.47	63.88	-2.0	4.41	64.36	59.56	48.27	67.52	65.21	77.84	45.88	76.71
Norway (37)	221.27	0.2	204.04	167.03	233.03	237.99	0.3	2.10	220.80	204.33	165.60	231.62	237.25	357.71	181.86	303.82
Philippines (22)	86.60	0.0	79.86	65.37	91.20	168.09	0.0	0.97	86.60	80.14	64.95	90.85	168.10	106.98	42.48	96.75
Portugal (18)	243.81	-0.3	224.83	184.05	305.99	305.99	0.1	1.07	244.55	226.41	183.49	305.84	305.84	288.39	194.13	–
Singapore (40)	205.93	0.7	189.90	155.46	216.88	153.68	0.9	1.67	204.50	189.25	153.38	214.53	182.28	246.74	102.45	228.05
South Africa (35)	191.29	0.3	176.40	144.40	201.46	259.95	0.7	3.58	190.75	176.52	143.06	200.10	258.28	346.20	151.55	284.74
Spain (30)	374.23	-1.9	345.10	282.50	431.43	431.43	-1.5	1.59	381.40	352.96	286.05	437.96	437.96	436.19	290.81	350.96
Sweden (43)	506.12	-2.0	466.73	382.07	533.04	616.45	-1.9	1.98	516.68	478.15	387.51	542.01	628.12	628.19	379.18	522.28
Switzerland (30)	386.35	-1.3	356.28	291.66	406.90	348.70	-0.6	1.22	391.47	362.22	293.56	410.60	351.64	441.65	307.73	385.72
Thailand (31)	21.76	0.1	20.07	16.43	22.92	31.50	0.0	2.66	21.75	20.13	16.31	22.81	31.50	33.84	8.15	32.51
United Kingdom (201)	378.97	-1.4	349.47	286.08	399.12	349.47	-1.7	2.76	384.21	355.56	288.16	403.05	355.56	401.84	307.98	370.16
USA (612)	510.23	-0.1	470.51	385.17	537.36	510.23	-0.1	1.29	510.76	472.67	383.07	535.81	510.76	527.72	390.12	428.35
Americas (783)	452.23	-0.1	417.03	341.39	476.28	384.17	-0.1	1.33	452.78	419.01	339.58	474.98	384.57	467.90	347.59	398.01
Europe (723)	343.21	-1.7	316.50	259.09	361.46	327.51	-1.6	2.09	349.18	323.14	261.89	366.30	332.74	396.24	282.63	324.08
Eurobloc (342)	97.18	-2.0	89.61	73.36	97.81	97.81	-1.6	1.84	99.20	91.80	74.40	99.45	99.45	113.92	81.53	–
Nordic (143)	483.65	-1.6	446.01	365.11	509.37	507.92	-1.4	1.87	491.78	455.11	368.84	515.90	515.95	555.97	360.04	455.25
Pacific Basin (721)	104.56	-1.3	96.42	78.93	110.12	81.53	-0.7	1.55	105.90	98.00	79.42	111.09	82.12	117.89	82.88	115.61
Euro-Pacific (1444)	203.74	-1.6	187.88	153.80	214.57	173.92	-1.3	1.93	207.01	191.57	155.26	217.16	176.26	221.79	166.00	202.58
North America (725)	488.99	-0.1	450.93	369.14	515.00	490.01	-0.1	1.31	489.64	453.13	367.23	513.65	490.55	506.43	374.92	415.51
Europe Ex. UK (522)	314.58	-1.9	290.09	237.47	331.30	307.14	-1.5	1.75	320.63	296.72	240.47	336.35	311.83	368.32	260.93	281.85
Europe Ex. Eurobloc (381)	95.76	-1.4	88.31	72.29	100.85	98.21	-1.5	2.35	97.10	89.86	72.82	101.86	99.70	103.93	77.40	–
Europe Ex. UK-Ex Eurobloc (180)	94.07	-1.4	86.75	71.02	99.08	94.49	-1.0	1.45	95.41	88.29	71.55	100.08	95.47	109.21	75.16	–
Pacific Ex. Japan (276)	179.52	0.9	165.55	135.52	189.07	165.67	1.1	3.53	177.98	164.71	133.48	186.70	163.72	218.04	128.26	213.00
World Ex. Eurobloc (1920)	104.37	-0.5	96.25	78.79	109.92	104.01	-0.4	1.56	104.92	97.09	78.69	110.06	104.47	108.05	83.09	–
World Ex. US (1650)	203.06	-1.5	187.28	153.31	213.88	178.78	-1.2	1.96	206.19	190.81	154.64	216.30	181.04	221.81	165.95	205.83
World Ex. UK (2061)	294.68	-0.7	271.75	222.46	310.35	267.19	-0.5	1.47	296.71	274.58	222.53	311.25	268.55	311.48	236.11	268.72
World Ex. Japan (1817)	403.99	-0.6	372.54	304.97	425.47	400.11	-0.6	1.66	406.[illegible]7	376.25	304.93	426.51	402.41	427.89	320.58	383.57
The World Index (2262)	301.94	-0.8	278.44	227.94	318.00	274.72	-0.6	1.60	304.24	281.55	228.18	319.15	276.47	318.51	242.36	277.30

Emerging markets: IFC investable indices

4 pm close March 2

NEW YORK STOCK EXCHANGE PRICES

Price data supplied by Financial Times Information.

Yearly highs and lows for NYSE reflect the period from Jan 1 1998. Unless otherwise noted, rates of dividend are annual disbursements based on the latest declaration. Volume figures are unofficial.
d-new yearly low. P/E price-earnings ratio. vol- volume. u-new yearly high. x-ex-dividend or ex-rights. yld-yield. z-sales in full.
‡ Dealings suspended.

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GLOBAL EQUITY MARKETS

US INDICES

Dow Jones	Mar 1	Feb 26	Feb 25	1998/99 High	1998/99 Low	Since compilation High	Since compilation Low
Industrials	9324.78	9306.58	9366.34	9643.32 (8/1/99)	7539.07 (31/8/98)	9643.32 (8/1/99)	41.22 (8/7/32)
Home Bonds	104.41	104.48	104.13	107.17 (9/12/98)	104.13 (25/2/99)	107.17 (9/12/98)	54.99 (1/10/81)
Transport	3225.86	3207.43	3220.15	3686.02 (16/4/98)	2345.00 (8/10/98)	3686.02 (16/4/98)	13.23 (8/7/32)
Utilities	291.02	293.87	294.11	320.51 (8/10/98)	262.86 (9/1/98)	320.51 (8/10/98)	10.53 (8/7/32)

DJ Ind. Day's high 9419.32(9459.52) Low 9167.76 (9177.54) (Theoretical‡)
Day's high 9355.21(9398.40) Low 9222.63 (9252.62) (Actual‡)

Standard and Poors	Mar 1	Feb 26	Feb 25	1998/99 High	1998/99 Low	Since compilation High	Since compilation Low
Composite‡	1236.16	1238.33	1246.02	1279.64 (29/1/99)	927.69 (9/1/98)	1279.64 (29/1/99)	4.40 (1/6/32)
Industrials‡	1482.31	1488.10	1501.77	1551.65 (29/1/99)	1077.40 (9/1/98)	1551.65 (29/1/99)	3.52 (30/6/32)
Financial‡	135.65	134.34	132.62	147.89 (14/7/98)	95.80 (8/10/98)	147.89 (14/7/98)	7.13 (4/8/74)
Others							
NYSE Comp.	585.43	586.48	587.43	611.06 (8/1/99)	477.20 (8/10/98)	611.06 (8/1/99)	4.64 (25/4/42)
Amex Comp	698.29	698.29	693.47	753.87 (22/4/98)	563.75 (8/10/98)	753.87 (22/4/98)	524.20 (16/7/85)
NASDAQ Cmp	2295.18	2288.03	2326.82	2510.09 (1/2/99)	1419.12 (8/10/98)	2510.09 (1/2/99)	54.87 (5/10/74)
Russell 2000	394.39	392.26	392.69	491.41 (21/4/98)	310.28 (8/10/98)	491.41 (21/4/98)	123.39 (7/12/98)

■ RATIOS

	Feb 26	Feb 19	Feb 12	Year ago
Dow Jones Ind. Div. Yield	1.67	1.68	1.66	1.63
	Feb 24	Feb 17	Feb 10	Year ago
S & P Ind. Div. yield	1.14	1.18	1.15	1.39
S & P Ind. P/E ratio	38.67	37.72	38.00	27.54

US DATA

■ MARKET ACTIVITY

● Volume (million)	Mar 1	Feb 26	Feb 25
NYSE	699.570	784.630	740.590
Amex	18.499	24.047	30.702
NASDAQ	775.001	804.933	884.628

NYSE	Mar 1	Feb 26	Feb 25
Issues Traded	3,542	3,528	3,558
Rises	1,389	1,445	1,652
Falls	1,571	1,495	1,357
Unchanged	584	588	541
New Highs	21	29	15
New Lows	187	104	139

■ NYSE TRADING ACTIVITY
Volume : 699,570,000

■ ACTIVE STOCKS

Monday	Stocks traded	Close price	Day's change
Compaq	27,326,100	33⅛	−2
Citigrp	14,617,000	61⅛	+2⅛
AmOnLine	11,989,800	99⅞	+⅝
AT&T	7,201,400	81⅜	−1
LucentTch	6,026,100	102⅞	+1⅝
MicroTech	5,789,100	57⅞	−⅞
PhMorr	4,912,600	39	−⅛
BankAm	4,635,400	67⅝	+1⅜
ChaseM	4,302,400	80⅝	+1⅛
IBM	4,187,100	169⅞	−1⅛

■ BIGGEST MOVERS

Monday	Close price	Day's change	Day's chge %
Ups			
Aydin Corp	12⅝	+3⅛	+33.0
Wall.Jam	25⅞	+3⅜	+13.0
ArvnB	15⅛	+1⅜	+9.7
Dr'sGh	13⅛	+1⅛	+9.7
Downs			
UGI Corp	15⅝	−4⅛	−21.5
Wynns Inr	16⅝	−2⅛	−11.3
TotalSyst	20⅞	−2⅛	−10.4
LiberRty	25	−2⅛	−7.8

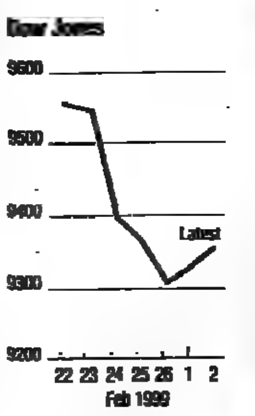
■ NASDAQ TRADING ACTIVITY
Volume :775,001,000

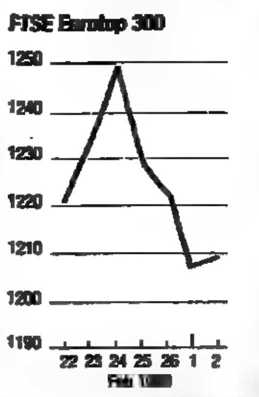
■ ACTIVE STOCKS

Monday	Stocks traded	Close price	Day's change
Intel	32,018,400	117⅛	−2⅝
DellCmp	23,550,700	80⅝	+⅛
AppMat	18,949,000	57⅛	+1⅛
Micrft	14,510,000	151⅝	+1⅜
CiscoSys	12,322,500	99⅛	+1⅛
Oracle	11,874,900	36⅞	−⅛
Quantm	11,057,700	19⅛	+3⅛
Yahoo	9,776,600	169⅞	+6⅛
Amz.com	9,638,100	133	+4⅛
MCIWcm	9,604,100	80⅜	−1⅛

■ BIGGEST MOVERS

Monday	Close price	Day's change	Day's chge %
Ups			
HutchTech	37⅞	+6⅜	+20.1
Collagen A	13⅞	+2⅛	+19.6
[illegible]	34⅞	+5⅛	+18.3
[illegible]	83⅞	+13⅜	+19.3
[illegible]	19⅛	+3⅛	+19.0
Downs			
Alpha Ind	17⅛	−3	−14.7
Barr Brws	17⅝	−2⅛	−11.7
GalileoTch	20⅞	−2⅛	−10.9





JAPAN

	Mar 2	Mar 1	Feb 26	1998/99 High	1998/99 Low	Since compilation High	Since compilation Low
Nikkei 225	13921.86	14221.75	14367.54	17264.3	12880	38915.9	85.25

Day's high 14088.01. Day's low 13921.86.

■ TOKYO TRADING ACTIVITY
Volume : 457,370,000

■ ACTIVE STOCKS

Tuesday	Stocks traded	Close price	Day's change
NpStl	18,609,000	210	−7
[illegible]	9,877,000	497	+2
SumMtl	8,699,000	118	−3
[illegible]	7,075,000	253	−5
[illegible]	6,845,000	1143	−27
FujiBk	6,543,000	449	−11
[illegible]	6,191,000	1381	−19
NKK	5,804,000	66	−2
KawStl	5,369,000	169	−17
Hitachi	4,872,000	751	+7

■ BIGGEST MOVERS

Tuesday	Close price	Day's change	Day's chge %
Ups			
[illegible]	155	+18	+13.1
TokDst	82	+6	+7.9
[illegible]	133	+8	+6.4
Downs			
[illegible]	280	−27	−11.8
[illegible]	168	−17	−9.2
[illegible]	2100	−180	[illegible]
NikkoS	333	−28	−7.8
[illegible]	2840	[illegible]	−7.2

FRANCE

	Mar 2	Mar 1	Feb 26	1998/99 High	1998/99 Low	Since compilation High	Since compilation Low
CAC 40	4048.63	4032.05	4092.94	4388.48	2852.54	4388.48	984.81

Day's High 4082.82. Day's low 3989.58.

■ PARIS TRADING ACTIVITY
Volume : 645,483,580

■ ACTIVE STOCKS

Tuesday	Stocks traded	Close price	Day's change
Usinor	8,389,610	11.9	+1.01
Renault	5,364,839	36.37	−3.63
Casino	2,260,524	84.95	+1.95
FrTele	1,702,797	82.8	−0.4
Schndr	1,395,882	48.82	−2.88
BNP	1,305,508	74.5	+3.6
[illegible]	1,297,406	41.88	−0.12
Axa	1,289,864	112.2	−2.8
AGF	856,298	50.05	−0.85
TotalB	828,603	97.8	+2.65

■ BIGGEST MOVERS

Tuesday	Close price	Day's change	Day's chge %
Ups			
Usinor	11.9	+1.01	+9.3
HavasAd	182	+13	+7.7
Atos	194.9	+12.8	+7.1
Sanofi	163.5	+9.5	+6.2
Downs			
Renault	36.37	−3.63	−9.1
Eiffge	60	−3.8	−6.0
Schndr	48.82	−2.88	−5.6
GrdVsn	20.7	−1.05	−4.8

GERMANY

	Mar 2	Mar 1	Feb 26	1998/99 High	1998/99 Low	Since compilation High	Since compilation Low
DAX	4884.82	4784.31	4911.81	6171.43	3896.08	6171.43	931.18

Day's high 4922.14. Day's low 4709.48

■ FRANKFURT TRADING ACTIVITY
Volume : 9,586,984

■ ACTIVE STOCKS

Tuesday	Stocks traded	Close price	Day's change
Lufthn	693,436	20.4	+0.4
Bayer	622,078	33	+1.7
BASF	361,603	31.4	+0.05
Dt Bk	356,651	49.2	+0.1
Dt Tel	328,507	43.5	+1.2
DmlrCh	298,318	84	+0.55
Commbk	292,878	24.95	−0.25
VW	228,987	56.7	−0.2
Veba	212,318	46.5	−0.2
Siemens	210,898	55.7	+0.4

■ BIGGEST MOVERS

Tuesday	Close price	Day's change	Day's chge %
Ups			
DEPFA	81	+5	+6.6
B'sdorf	67	+4	+6.3
Bayer	33	+1.7	+5.4
[illegible]	74.5	+3.5	+4.5
Downs			
HeidZm	57	−3.5	−5.8
[illegible]	57.5	−3.5	−5.7
[illegible]	17.8	−0.9	−4.8
H'chst	39.4	−1.9	−4.8

UK

	Mar 2	Mar 1	Feb 26	1998/99 High	1998/99 Low	Since compilation High	Since compilation Low
FTSE 100	6081.3	6080.9	6175.1	6387.6	4548.7	6387.6	986.9

Day's high 6090.5. Day's low 6033.5.

■ LONDON TRADING ACTIVITY
Volume : 985,400,000

■ ACTIVE STOCKS

Tuesday	Stocks traded	Close price	Day's change
Shell	25,161,280	329	−5⅛
MFI	20,053,740	32½	+½
Rentokil	18,346,250	400¾	−48
M & S	18,159,280	395	−16½
GEC	15,053,510	538	+20
BP Amoco	14,395,900	850½	−12
ASDA	14,295,790	153½	−2
[illegible]	13,482,920	381	−4½
Wimpey (G)	12,909,930	142½	+8½
Compass Grp	11,866,820	746½	−44½

■ BIGGEST MOVERS

Tuesday	Close price	Day's change	Day's chge %
Ups			
Petra Diamnd	81½	+21½	+35.8
Provend Grp	148½	+31	+26.4
Versailles Grp	1⅛	+⅛	+25.0
Prime People	11½	+2¼	+24.3
Downs			
Dailywin	2	−½	−25.0
On-Line	131	−20½	−13.5
Locker Grp	14½	−2¼	−13.4
Pan Andean	5⅛	−⅛	−11.5

INDEX FUTURES

■ S&P 500	Open	Sett price	Change	High	Low	Est. vol.	Open int.
Mar	1240.00	1240.00	+1.00	1245.00	1234.60	98,347	342,179
Jun	1254.50	1252.50	+1.60	1258.00	1250.00	11,690	59,473
■ Nikkei 225	Open	Sett price	Change	High	Low	Est. vol.	Open int.
Mar	14300.0	13910.0	−390.0	14320.0	13900.0	34,680	180,125
Jun	14220.0	13810.0	−370.0	14240.0	13810.0	4,342	70,451

Open interest figures for previous day.

■ [illegible]	Open	Sett Price	Change	High	Low	Est. vol.	Open int.
Mar	4041.0	4045.0	+15.0	4070.0	3984.0	55,708	148,218
Jun	4029.0	4006.0	+15.0	–	–	289	–
■ DAX							
Mar	4818.0	4800.0	+38.0	4838.0	4709.0	61,883	225,381
Jun	4845.0	4824.0	+22.0	4860.0	4735.0	9,108	68,020

■ OMX	Open	Sett Price	Change	High	Low	Est. vol.	Open int.
Mar	717.00	724.00	+9.25	724.50	713.25	18,873	124,880
Apr	731.00	721.50	+7.25	723.00	721.50	204	124,315
■ [illegible]							
Mar	7024.0	6980.0	−8.0	7051.0	6954.0	27,987	137,793
Jun	6959.0	6920.0	−8.0	6964.0	6900.0	1,268	5,719

WORLD MARKETS AT A GLANCE

Country	Index	Mar 2	Mar 1	Feb 26	1998/99 High	1998/99 Low	‡ Yield	‡ P/E
Argentina	General	16362.26	16318.28	16278.84	23485.80 23/3/98	12369.10 10/9/98	4.27	12.6
‡Trading cautiously higher as investors focused attention on Brazil's currency.								
Australia	All Ordinaries	2902.8	2911.1	2879.9	2940.50 4/2/99	2458.20 1/9/98	2.91	23.3
	All Mining	569.4	569.1	568.4	713.10 23/4/98	499.80 31/8/98		
Slipped with bonds as A$ stabilised from recent weakness after much stronger-than-expected January retail sales data.								
Austria	ATX Index	1158.16	1161.74	1172.76	1628.55 25/6/98	892.06 1/10/98	1.98	12.5
Recovered from intra-day lows to end slightly lower after tracking German market.								
Belgium	BEL20	3304.33	3300.03	3381.88	3581.92 8/1/99	2257.70 10/1/98	1.52	25.2
Dragged back into positive territory by early rise on Wall Street, as cement maker CBR led the pack.								
Brazil	Bovespa	9118.0	9198.0	8811.0	12299.80 15/4/98	4761.80 10/9/98	na	na
‡Traded lower as bargain hunters failed to turn up after Real's 6 per cent plunge on Monday.								
Canada	TSE 100‡	384.04	385.08	386.21	476.83 25/5/98	324.91 5/10/98	1.88	17.8
	Metals Mins‡	2985.38	3033.29	3034.16	4390.01 10/3/98	2509.19 31/8/98		
	TSE300Comp‡	6291.70	6302.20	6312.69†	7822.30 22/4/98	5335.70 5/10/98		
	Portfolio§§	3360.38	3370.02	3376.38	3985.81 25/5/98	2719.24 5/10/98		
‡Retreated in early trading, dragged down by weakness in commodity prices.								
Chile	IGPA Gen‡	3818.89	3834.79	3741.11	4861.98 17/3/98	3993.95 14/9/98	3.24	12.5
‡Trading lower at midsession, hit by poor 1998 earnings data.								
China	Shanghai B	23.07	23.94	(c)	59.88 10/2/98	23.07 2/3/99	1.74	28.2
	Shenzhen B	46.16	48.04	(c)	98.97 10/2/98	44.73 4/2/99		
Fears over corporate earnings sent Shanghai B shares sliding to new lows as turnover expanded to $1.24m.								
Colombia	IBB	889.88	889.46	889.46	1431.48 7/1/98	776.37 14/10/98	na	na
Czech Republic	PX 50	338.8	333.4	341.2	517.38 23/3/98	316.89 8/10/98	na	na
Denmark	CopenhagenSE	604.73	604.73	608.91	778.84 7/4/98	509.95 9/10/98	1.59	19.2
Sharp drop in holding company Ratin dragged market lower while investors shifted their attention to euro-zone markets.								
Egypt	Cairo SE Gen	442.64	442.21	(c)	447.82 1/2/99	345.40 2/2/98	na	na
Strong buying in selected stocks including MobiNil helped market close higher.								
Finland	Hex General	6055.28	5974.15	6043.99	6283.66 20/1/99	3328.49 12/1/98	1.72	22.9
Gains in Nokia lifted market higher as rising Wall Street helped consolidate advance.								
France	SBF 250	2561.97	2553.72	2597.00	2799.73 17/7/98	1873.16 12/1/98	2.2	21
	CAC 40	4048.63	4032.05	4092.94	4388.48 17/7/98	2862.54 12/1/98		
Closed slightly higher after uncertain day as investors took heart from firm start in New York.								
Germany	FAZ Aktien	1610.02	1594.16	1597.36	1946.80 20/7/98	1250.80 2/10/98	1.37	19.5
	DAX§	4884.82	4784.31	4911.81	6171.43 20/7/98	3896.08 8/10/98		
Reversed three days of decline after late rally. Bayer rose 5 per cent on news of US drug accord.								
Greece	Athens General	3318.02	3394.47	3377.58	3469.85 15/2/99	1380.13 29/1/98	1.37	27
	FTSE/ASE 20	2058.98	2108.08	2100.37	2183.48 15/2/99	765.18 29/1/98		
Rumours, later denied, of rising military tension with Turkey wiped out modest gains in large-cap stocks.								
Hong Kong	Hang Seng	9913.56	10020.46	9858.49	11810.80 25/3/98	6660.42 13/8/98	3.8	13.4
	HSCC Red Chip	724.73	761.34	737.87	1776.09 27/2/98	576.97 1/9/98		
HSBC dipped in wake of recent string of gains. Properties and China plays also fell while utilities rose against trend.								
Hungary	Bux	5529.29	5579.20	5520.94	9816.38 23/4/98	3776.02 21/8/98	na	na
Underperformed European markets as rising current account deficit kept foreign investors at bay.								
India	BSE Sens.	(u)	3523.96	3233.86	4280.96 21/4/98	2764.15 20/10/98	na	na
	S & P CNX 500	(c)	707.64	869.70	915.62 21/4/98	557.88 20/10/98		
Indonesia	Jakarta Comp.	394.95	398.25	396.09	554.10 2/2/98	256.83 21/9/98	2.49	19.2
Drifted lower in thin volumes as investors continue to await announcement on banking sector restructuring.								
Ireland	ISEQ Overall	5200.48	5314.12	5335.85	5471.81 21/4/98	3745.11 8/10/98	1.87	18.4
Israel	Tel Aviv 100	(c)	311.33	(c)	337.43 6/8/98	249.18 8/10/98	na	na
Advanced together with currency on news of early general elections to be held in 1999.								
Italy	BCI Comit 30	347.84	347.60	359.55	398.80 29/7/98	249.51 9/10/98	1.98	24.8
	Banca Com Ital	1468.3	1497.8	1503.47	1654.36 7/4/98	1083.50 9/10/98		
	Mibtel General	23745.0	23800.0	23930.0	26377.00 6/4/98	16761.99 9/10/98		
Ended slightly lower despite late foray in the black. Olivetti rose 5 per cent on takeover optimism.								
Japan	Nikkei 225	13921.86	14221.75	14367.54	17264.39 2/3/98	12880.09 9/10/98	0.94	53.1
	Nikkei 300	217.89	221.38	223.84	257.43 10/2/98	182.20 9/10/98		
	Topix	1092.99	1107.81	1120.63	1369.39 10/2/98	980.11 15/10/98		
	2nd Section	1307.24	1312.35	1307.39	1461.27 12/2/98	1069.04 13/10/98		
Continued to suffer from unwinding of cross-shareholdings ahead of March 31 financial year-end.								
Jordan	Amman SE	183.12	182.27	(c)	184.82 17/8/98	166.46 18/11/98	na	na
Malaysia	KLSE Comp.	528.03	531.54	542.23	745.36 27/2/98	262.70 1/9/98	2.61	14.8
Early gains were chased back down by fresh supply and falls beat rises by 13 to 4. Volumes remained firm.								
Mexico	IPC	4235.77	4217.74	4260.90	5204.80 2/1/98	2265.10 10/9/98	1.24	14.8
‡Followed Wall Street higher, keeping momentum after spate of positive earning figures on Monday.								
Morocco	CASA	829.62	830.55	831.22	893.88 1/9/98	693.57 21/1/98	na	na
Ended slightly lower dragged down by losses in largest stock ONA group.								
Netherlands	CBS TRtnGen	1282.0	1294.8	1304.5	1493.80 20/7/98	874.90 8/10/98	2.18	28.4
	CBS All Shr	713.4	715.1	728.8	845.00 20/7/98	549.19 8/10/98		
Poor showing by Baan and Hunter Douglas kept market in the red despite steady opening on Wall Street.								
New Zealand	Cap. 40	2153.02	2165.84	2158.86	2350.02 20/3/98	1699.34 2/10/98	5.05	21.1
Forestry sector turned lower after Monday's gains while Telecom and Lion Nathan hardened.								
Nigeria	SE All-Share	(u)	5375.24	(c)	6884.07 11/2/98	5226.40 12/1/98	na	na
Norway	Oslo SE Ind	1741.80	1732.11	1720.28	2378.86 4/5/98	1359.76 8/10/98	2.51	11
Shipping stocks rose on hopes of higher rates while market posted modest advance at close of nervous day.								
Pakistan	KSE-100	955.58	932.49	926.21	1746.31 2/1/98	765.33 14/7/98	na	na
Hub Power jumped 10.4 per cent amid talk of some progress on tariff row with government.								
Peru	Lima Gen	1469.62	1411.58	1417.95	1988.91 4/5/98	1169.59 21/9/98	na	na
Philippines	Manila Comp	1978.38	1984.27	1985.05	2011.42 25/3/98	1082.10 11/9/98	1.37	14
Blue chips PLDT, Metropolitan Bank, San Miguel and Metro Pacific made gains while falls beat rises by 5 to 2.								
Poland	Wig	13351.3	13457.3	13235.2	18692.70 11/3/98	10423.70 9/10/98	2.17	9.3
Closed higher as prime minister Jerzy Buzek began ministerial reshuffle.								
Portugal	BVL 30	4825.43	4872.45	4872.92	6176.89 22/4/98	3590.08 3/10/98	2.1	26.7
	PSI 20	11138.87	11249.47	11244.40	14293.00 22/4/98	8114.91 3/10/98		
Sharp fall in BPI said to be as result of single large foreign investor seeking to sell.								
Russia	RTS	76.06	73.49	70.03	411.81 5/1/98	38.53 5/10/98	na	na
Expectations of switching out of domestic debt fuelled advance in equities market.								
Singapore	SES All-S'pore	394.51	398.45	393.52	437.89 19/3/98	253.20 4/9/98	2.24	21.1
	Straits Times	1418.61	1422.85	1411.91	1693.75 19/3/98	805.04 4/9/98		
Key blue chips turned lower while rises beat falls by 7 to 5.								
Slovakia	Sax	86.19	86.32	86.15	182.48 5/1/98	81.45 20/11/98	na	na
Losses in insurer Slovenska Poistovna pulled broad market down in listless session.								
South Africa	JSE All Share	5980.2‡	5948.0	5814.6	8359.70 20/4/98	4694.40 11/9/98		
	JSE Gold	890.7‡	856.4	847.5	1310.80 8/10/98	672.60 18/3/98		
	JSE Indl	8827.2‡	8809.0	8767.7	9842.70 20/4/98	2345.80 11/9/98		
News of some rate cuts at First National Bank and Nedcor lured buyers back into market.								
South Korea	KoreaCompEx**	533.97	(c)	520.08	649.85 11/1/99	280.00 16/6/98	1.21	22.3
Expectations of interest rate cut and stable yen currency inspired buying across the board.								
Spain	Madrid SE	877.01	878.14	880.41	947.82 17/7/98	643.29 5/10/98	1.89	24.2
Broad market flat with handful of shares registering sharp gains or losses on basis of 1998 results.								
Sri Lanka	CSE All Share	595.40	(c)	598.12	789.70 4/5/98	481.09 3/9/98	na	na
Several large foreign trades dominated turnover in day otherwise subdued as stock exchange moved to new offices.								
Sweden	AffarsvardGen	3418.0	3389.7	3442.6	3955.60 20/7/98	2411.70 8/10/98	2.01	20.7
Engineering sector helped by rebound in Ericsson while forestry sector also outperformed.								
Switzerland	SMI Index	6978.5	6895.0	7063.8	8412.00 21/7/98	5126.80 5/10/98	1.38	23.7
	SPI General	4419.41	4434.80	4470.42	5237.39 20/7/98	3311.30 5/10/98		
Ares Serono plunged on news of possible delay of US approval for its multiple sclerosis drug Rebif.								
Taiwan	Weighted Pr.**	6363.54	6312.25	6318.52	9277.09 2/3/98	5474.79 5/2/99	1.8	19.5
Cautiously lower in wake of defeated no-confidence motion against premier. Electronics sector fell 1.9 per cent.								
Thailand	Bangkok SET	336.82	(c)	340.84	558.92 3/2/98	207.31 4/9/98	2.03	14.9
News of increasing levels of banking sector non-performing loans hurt sentiment. Banks lost 1.9 per cent.								
Turkey	IMKB Nat 100	3817.47	3893.17	3890.83	4530.99 16/7/98	1852.38 8/10/98	2.66	18.3
Profit-taking eroded some of the gains posted in recent weeks on optimism ahead of next month's elections.								
Venezuela	IBC	3771.90	3822.31	3810.67	7895.02 23/3/98	2694.70 10/9/98	na	na
‡Traded lower amid oil prices uncertainty.								
Zimbabwe	ZSE Industrial	7595.09	7543.03	7524.34	9398.71 31/3/98	5441.56 1/9/98	na	na
Crop of good corporate results enticed some foreign buyers back and sent industrial index higher.								
WORLD	FT/S&P World(n)	(u)	301.94	304.34	318.51 6/1/99	242.38 5/10/98	na	na
	MS Capital Intl‡	1133.0*	1132.4	1141.3	1165.50 6/1/99	888.50 12/1/98	na	na
CROSS-BORDER	DJ Stoxx 50	3430.42	3416.80	3459.85	3570.92 20/7/98	2433.07 8/10/98		
	DJ Euro Stx 50	3451.18	3441.74	3484.24	3665.36 6/1/99	2419.23 8/10/98		
	FTSE E300	(u)	1207.86	1222.83†	1327.58 20/7/98	893.55 5/10/98		
	FTSE E100	(u)	2770.53	2804.45	3086.91 20/7/98	2049.91 8/10/98	na	na
	HSBC Dvgn	(u)	216.70	214.39	273.81 26/3/98	161.71 5/10/98	na	na
	[illegible]	112.72	113.56	113.37	[illegible] 7/1/98	88.84 11/9/98	na	na

** Sun Feb 27: Taiwan Weighted Price (c). §§ Montreal. ‡ Toronto. (c) Closed. (u) Unavailable. ‡ XETRA-DAX after-hours index: Mar 2 - 4797.84 +10.77. † Correction. * Calculated at 15.00 GMT. ● Excluding bonds. ‡ Industrial, plus Utilities, Financial and Transportation. ‡ The DJ Ind. index theoretical day's highs and lows are the averages of the highest and lowest prices reached during the day by each stock; whereas the actual day's highs and lows represent the highest and lowest values that the index has reached during the day. (The figures in brackets are previous day's). ‡ Subject to official recalculation. ‡ Yields and P/E ratios are based on Datastream Total Market indices. ‡ Midsession.

THE NASDAQ-AMEX MARKET GROUP

4 pm close March 2

Stock	Div.	P/E	Vol 100s	High	Low	Last	Chng
Acclaim E		18	7043	7⅞	7⅛	7⅞	−⅛
Acxiom Cp			6960	25⅛	24⅞	25⅞	+1⅛
Adaptec			12280	21⅞	19⅞	19⅞	−⅞

AMEX

4 pm close March 2

EASDAQ

The EASDAQ All Share Index (EASI) for 2nd March: 974.38 down 1.50% Day's high: 986.04 Day's low: 973.71

EASDAQ is a fully regulated independent pan European Stock Market focused on high growth companies with international aspirations. The shares of companies on the EASDAQ Stock Market can be bought and sold through EASDAQ Members.

Company	Mid price	Change on day	Volume	High	Low	Company	Mid price	Change on day	Volume	High	Low
4Front Technologies	USD10.45	-0.69	9385	11.5	5.5	ICOS Vision Syst	USD15.18	-0.03	150	20.5	11.625
ActivCard	USD4.29	-0.28	228600	5.69	1.57	Innogenetics	EUR25.6	-0.1	77926	63.45	23.04
Algol‡	EUR7.98		0	22.853	7.57	Integr. Surg. Syst.	EUR2.55		500	6.239	2.301
[illegible]	GBP0.47		1000	0.44	0.34	Lernout & Hauspie	USD30.38	+2.13	103602	65.25	30.25
Artwork Systems	EUR17.95	-0.18	39423	18.11	6.75	[illegible]	EUR10.78	-0.1	3894	17.2	8.47
Autonomy Corp.	USD8.45	-0.48	320853	8.09	2.59	Memory Corporation‡	USD15.23	-0.1	9000	16.03	8.93
Chemunex‡	EUR7.08	-0.01	0	3.43	0.838	Mercer Intl‡	USD7.35	-0.2	0	11.75	5.75
City Bird Holding	USD6.85	-0.03	1500	6.3125	6.31	NetVision	EUR39.95	+0.05	13284	46.38	30.75
[illegible] Holdings	GBP1.17	-0.05	5000	2.9	0.65	NTL	USD77.5	-1	0	81.63	30.88
EDAP TMS	USD1.79	+0.18	500	7	1.43	Option Intl	USD26.1	-0.25	2645	67.63	11.75
EPIQ	EUR3.6	-0.03	1650	5.3	2.109	Orthovita, Inc ‡	USD5.78		1850	11.625	4.5
ESAT Telecom	USD47.25	-0.31	0	52.5	20.25	[illegible] Racing Syst.	EUR350.5	-10	925	374.265	216.2
Espace Prod. Intl.	EUR14.68	+0.05	0	16.45	13.9	Pharming	EUR7.63	-0.2	34955	15.202	7.13
[illegible] Telecom	USD46.38	-2.48	1000	58	12.5	[illegible]‡	USD2.44	-0.09	13850	7.625	2.04
Eybl International	EUR25.8		1730	50.144	19.48	Royal Olympic	EUR3.48	-0.08	500	15.876	2.467
FLV Fund	USD10.73	+0.53	120465	22.25	11.80	SAT Syst Integr.	EUR57		149	301.956	35.5
Global Graphics	EUR58.75	+0.5	2615	29.25	20.174	Schoeller-Bleckmann‡	EUR33.65	-0.1	200	130.448	36.75
Global TeleSystems	USD52.88	-1.88	50	65.9	21.63	TelDaFax	EUR48.75	-3.75	4850	61.25	26.84
Grainger Telecom	USD6.25	-0.18	2250	37.25	6.5	Topcall Intl‡	EUR64.1	-2.58	32333	57.8	14.28
Gruppo Formula	EUR11.80	-0.02	320	33.828	7.93	Turbodyne Technol ‡	USD		0	16.35	2.1

Prices for 02/03/99. Please note that mid prices are now used to calculate highs and lows. Information about EASDAQ can be found on the Web site at http://www.easdaq.be EASDAQ offices are located in Brussels (Tel: 32 2 / 227 65 201) and in London (Tel: 44-171 / 489 9900). Annual/Interim reports can be obtained for companies with a ● marked in this box. Annual Reports Club telephone +44 181 770 0770. For further details please see Share Price pages.

ESDAY MARCH 3 1999

DIGEST

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STOCK MARKETS

Expensive US stocks stay centre stage

WORLD OVERVIEW

European equity markets closely tracked their US counterpart as attention remained on the high price of US shares relative to bonds, *writes Bertrand Benoit.*

Paris and Frankfurt both posted gains of less than 0.5 per cent while an uncertain Wall Street was trading higher at the close of the European day. Asia delivered a mixed performance, with Tokyo and Hong Kong down while Korea extended its two-day rebound.

The outlook for the US market has darkened since the recent shakeout for US Treasuries. Long bond yields stabilised yesterday after the Commerce Department said new home sales had slipped in January. But US Treasury prices have dropped back to pre-Russian crisis levels after investors raised their US inflation forecasts.

With bonds now cheaper, shares are looking relatively expensive. While a modest correction may be on the cards, however, few analysts think share-hungry US investors are on the way out.

"Stocks do look expensive, but nothing short of an interest rate hike could trigger a sharp downturn," said Matthew Wickens, international economist at ABN-Amro.

In Europe fading hopes of lower interest rates were weighing on equities.

Monetary growth, generous wage rounds in Germany, a weak euro and upbeat consumer confidence lifted pressure off the European Central Bank to cut rates when it meets on Thursday.

The point was reiterated yesterday by ECB board member Tommaso Padoa-Schioppa, who said the 3 per cent refinancing rate was "appropriate" despite euro-zone annual inflation at 0.8 per cent in December.

Yet bears remain a rare species in Europe and most analysts think selective gains can be made with the current low inflation.

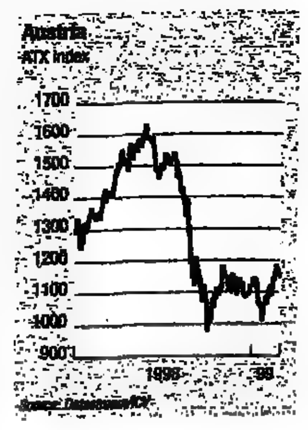
Size, and therefore M&A transactions, will matter increasingly as margins come under pressure, writes Richard Davidson at Morgan Stanley in his European strategy note.

Nor has the economic slowdown meant earnings disappointment across the board. Of 149 European companies which posted 1998 results, 59 have surprised on the upside, according to a note by Lehman Brothers.

Meanwhile, the euro-zone has clearly become a powerful magnet for investors. Total European volumes soared by 40.8 per cent in January while cross-border activity jumped 117.5 per cent, according to BT Alex Brown. But investors dealt both ways, with nervous euro-zone markets rising 1.5 per cent on the month.

MARKET FOCUS

Vienna starts to catch up rivals



Austria's stock market, after years of underperformance, has sprung back to life. While most European markets headed lower in February, Austria rose 9 per cent.

In the first two months of 1999, Austria rose nearly 4 per cent, compared with a 4 per cent decline in Frankfurt and 2 per cent drop in Zurich. This year's rise in Austrian shares might not sound spectacular but it is in marked contrast to recent years when the Austrian market has trailed badly.

Indeed one of the reasons for the recent spurt is that Austria has a lot of catching up to do. It has never boasted well-known international blue chips, like Switzerland's Nestlé or ABB. The biggest shares in Vienna rank as mid-cap stocks and are not particularly liquid by international standards. They have suffered from the international investors' love affair with big blue chips.

Nevertheless, Austria has some well-run companies which are niche players in certain international markets. VA Stahl, for example, is not Europe's biggest steel company, but one of the most efficient. Despite overcapacity in the industry, it has just reported its best nine-month results since 1995 and is optimistic that the worst of the recession is over in the industry.

VA Tech, VA Stahl's sister company, is another which has never had the same sort of investor attention as ABB or Siemens. Yet it has probably been more successful in adjusting its business to shifts in the heavy engineering markets.

"The big difference between us and ABB is that we are a technology-based systems supplier. Their main business is engineering," says Othmar Pühringer, VA Tech's chief executive. His company is trading on just over 10 times 1999 earnings. Böhler-Uddeholm, an Austrian specialist steel company which reported a double-digit rise in 1998 earnings, is selling on less than 8 times 1999 earnings.

Shares in Bank Austria, the country's biggest bank, jumped 10 per cent one day last month after Goldman Sachs announced it was "the most attractive bank stock in Europe".

But while history suggests Austria's banks may not be quite as cheap as they look, there are several reasons why Austria may still outperform in 1999. The market is trading on 13 times 1999 earnings and Creditanstalt forecasts earnings will grow 2 per cent this year and 14 per cent next.

Worries about the Russian exposure of Austrian banks and industrial companies appears to have been overdone and while the jury is still out on whether restructuring of banks will lead to an improvement in profitability, many industrial companies are in a much healthier shape than five years ago. Many have adopted International Accounting Standards, increasing investor transparency.

Meanwhile, the arrival of the euro and the Vienna stock exchange's link with Frankfurt means it is becoming easier to compare Austrian stocks with their European rivals.

William Hall

Shake-up at Hewlett lifts Wall Street

AMERICAS

Stocks on Wall Street surged higher by midday, helped by news of a restructuring at Hewlett-Packard that sent shares of the computer maker almost 9 per cent higher, *writes John Labate in New York.*

Shares of Hewlett-Packard, one of the 30 stocks in the Dow Jones Industrial Average, were halted throughout the morning session in advance of the news of its restructuring programme, which includes a spin-off of the company's measurement materials business. Soon after the announcement, the stock began trading and rose $5⅝ or 8.9 per cent to $71⅞.

HP's restructuring is the third major announcement by a leading computer maker in recent sessions. Last week, Compaq Computer warned analysts that its first-quarter sales would be below expectations, and before that, Dell Computer surprised investors by reporting slower-than-expected revenue growth. Both were down in early afternoon trading, with Compaq off $⁹⁄₁₆ to $32¹³⁄₁₆ and Dell $1⅛ lower at $80¹⁄₁₆.

The Dow was 83.13 stronger by early afternoon at 9,407.91. The broader Standard & Poor's 500 index had gained 10.31 to 1,246.47. The Nasdaq composite, weighted in high-tech shares, rose 30.63 to 2,315.81.

Other gainers in the Dow included Union Carbide, up $1¹⁄₁₆ to $43, and McDonald's, $2¹⁄₁₆ higher at $88⅞.

Micron Technology fell $1¹⁵⁄₁₆ at $55¹⁵⁄₁₆ after Nationsbanc Montgomery Securities cut its rating to "hold" from "buy".

Airline stocks picked up momentum after Goldman Sachs raised its rating for several companies. UAL climbed $3⅞ or more than 6 per cent to $65⅞ and AMR gained $3¼ to $59⅞ after Goldman raised both to "market outperformer" ratings.

At Home, the internet cable service provider, rose $10⅞ to $118 after it announced a two-for-one stock split.

Retail earnings results continued to trickle in. Federated Department Stores rose $1¼ to $40¹⁄₁₆ after it released its results and CVS was up $¹³⁄₁₆ to $51¹³⁄₁₆ after it reported an 11.3 per cent rise in February same-store sales.

TORONTO moved lower in early trading with broad market weakness over-riding a strong rally for gold shares.

With bullion gaining ground at the London fix, gold stocks pushed ahead in good two-way trading volumes. Barrick gained 30 cents at C$17.05 and Placer Dome 35 cents to C$27.10.

Banks, though, were mixed and most industrial sectors came in for selling. Banks traded uneasily on renewed interest rate concerns as jittery talk broke out ahead of Friday's US jobs data.

Royal Bank of Canada added 55 cents at C$72.95, but Bank of Montreal lost 20 cents at C$62.95 and Toronto-Dominion came off 70 cents at C$61.70.

Bank of Nova Scotia gave up 30 cents at C$30.60.

Among industrials, BCE lost 40 cents at C$62 and Northern Telecom C$1.55 at C$87.45.

Alcan Aluminium eased 60 cents to C$36.60. The 300 composite index was off 24.02 at 6,278.20 at noon.

São Paulo cautious on hopes for IMF support

SAO PAULO traded narrowly through the morning with most investors tracking the Real on foreign exchanges amid rumours that there could be good news for the hard-pressed currency later in the week.

"There is a certain amount of betting that a deal with the IMF could be struck shortly," said one enthusiastic broker. Brazil is in talks aimed at thrashing out revised terms for an IMF $41.5bn support package.

At midsession, the benchmark Bovespa index was marginally lower at 9,137, a decline of 61.

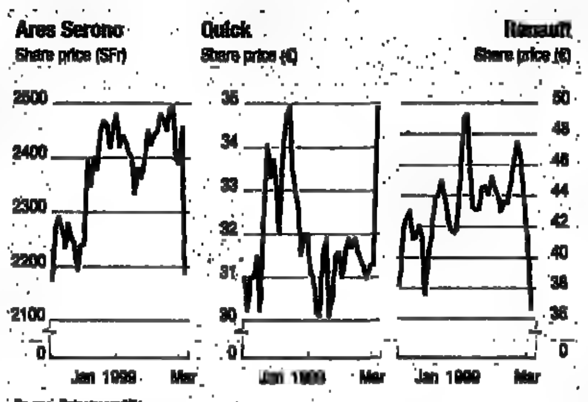
MEXICO CITY reversed early gains to end the morning slightly lower. Volumes were on the dull side.

Brokers said the uncertain early trend on Wall Street had kept most investors on hold. Among top stocks, builder Empresas hardened 20 centavos to 7.52 pesos.

At midsession, the IPC index was off 6.31 at 4,211.43.

Frankfurt reverses decline

EUROPE



A late rally lifted FRANKFURT, reversing three days of decline and sending the Xetra Dax index up 18.77 to 4,797.84 after a session low of 4,704.72.

Chemicals were active with Hoechst hit by switching into Bayer following the latter's cancer treatment accord with a US group. Both shares were heavily traded. Hoechst came off €2.03 at €39.20 while Bayer jumped €1.55 to €32.85.

Steels were also active. Planned merger partners Thyssen and Krupp moved in opposite directions with the former off €3.85 at €162.50 and Krupp up €1 at €125.50. Preussag jumped €10.10 to €439.50 in spite of denying reports it planned to bid for First Choice, the UK holiday group.

The FTSE Eurotop 300 index rose 1.33 or 0.11 per cent to 1,209.25. See Euro Prices page.

PARIS ended modestly ahead after a day spent tracking a somnolent Wall Street. The CAC-40 added 16.58 to 4,048.63.

Alcatel posted one of the best performances after it announced the acquisition of US internet equipment maker Xylan Corp to match similar recent takeovers by Nortel and Lucent. The stock surged €5.20 to €101.50.

Sanofi more than recouped its loss on Monday, ending €9.50 or 6.2 per cent higher at €163.50. BNP added €3.60 or 5.1 per cent to €74.50 after brokers cheered its 23 per cent rise in 1998 profits by raising recommendations or reiterating their positive stance.

The strong dollar was said to be behind a rally in oil stocks. Elf-Aquitaine added €4.40 to €100, while Total gained €2.65 to €97.50.

Renault was not thanked for its better-than-expected results posted after the market closed on Monday.

The share lost €3.63 or 9.1 per cent to €36.37, a 23.4 per cent fall in six days, as investors reflected on the gloomy 1999 outlook for the European car industry. Peugeot, which reports 1998 results today, was also feeble, cutting €1.60 to €119.10.

Axa extended its Monday losses, dropping €2.60 to €112.20 on Suez-Lyonnaise de Eaux's decision to issue a €878m bond convertible into Axa shares.

ZURICH was enlivened by a 10.8 per cent plunge in Ares Serono after the drugs group failed to win marketing approval this year for its Rebif multiple sclerosis drug in the US. The shares dropped SFr265 to SFr2,190, after the US Food and Drug Administration upheld the so-called "orphan" drug status of two rival MS drugs, which may keep Rebif out of the US market until 2003.

The broad market was flat for much of the session and the SMI index closed with a loss of 18.5 at 6,976.5.

Index heavyweights were mixed. Novartis fell SFr14 to SFr2,501 while Roche certificates rose SFr115 to SFr18,315. Food company Nestlé edged up SFr5 to SFr2,713 while among banks, UBS lost SFr3 to SFr442 and CS Group SFr2 to SFr223.

SAirGroup was in demand ahead of today's annual news conference, rising SFr6 to SFr318. Forecasts of the group's 1998 profit rise range from 2.5 per cent to 21 per cent with analysts unable to agree about the impact of falling fares and the Asian economic crisis.

Swisscom added SFr4 to SFr574, recovering from recent lows and helped by favourable recommendations. Shares of chemicals and plastics group EMS remained under pressure, losing SFr150 to SFr7,000, still hurt by last week's disappointing figures for 1998.

AMSTERDAM ended off 1.22 at 526.09 on the AEX index after a low volume session. Baan fell steeply after announcing 1998 losses and predicting a tough year ahead. The shares came off 55 cents at €7.85. Wessanen, a strong market lately after announcing a big US foods takeover, fell 35 cents to €12.

Aegon edged up 75 cents at €94.50 ahead of today's results statement, but financials were mostly nervous ahead of tomorrow's interest rate policy meeting of the European Central Bank. Fortis lost 25 cents at €33.55.

Heineken hardened €1.15 to €47.40 in advance of today's results, widely expected to show solid growth for last year. KLM put on 95 cents at €26.55.

MILAN failed to sustain a late foray into positive ground as Wall Street ventured higher and the real-time Mibtel index finished 63 weaker at 23,746.

Olivetti was in focus, rising 14 cents to €3, off a high of €3.002 on talk that the telecoms group could be the target of a takeover unless it bolstered its core shareholder base.

Broadcaster Mediaset rose 33 cents to €8.85 on hopes that talks to create a pan-European TV venture, known as Traviata, may be reaching a conclusion.

MADRID was little moved after a handful of shares registered sharp gains or losses on the basis of 1998 results. The general index finished 1.13 weaker at 877.01.

Iberdrola underperformed, falling 48 cents to €13.50 after Goldman Sachs and CSFB cut their recommendations after 1998 results that failed to live up to expectations.

BRUSSELS edged into positive territory after New York turned positive and the Bel-20 index finished 4.30 higher at 3,304.33.

Cement maker CBR led blue-chip gainers, ending €4.20 or 5.3 per cent higher at €84.50 but in low volume trade.

Outside the blue chips, Quick Restaurants ended €3.60 or 11.5 per cent higher at €34.90, off a near six-month intraday high of €36.40, after news late on Monday of a return to profit in 1998.

Written and edited by Michael Morgan, Jeffrey Brown, Peter Hall and Mark Herlihy

Jo'burg boosted by rate cut

SOUTH AFRICA

Cuts in bank prime lending rates and another surge for gold shares helped to lift sentiment in Johannesburg where the all share index gained 32.2 to 5,980.2.

Golds surged with Randgold up 17.1 per cent to R4.80 and AngloGold adding 4 per cent at R230.20. Driefontein rose 7.5 per cent to R24.50. The sector index gained 4 per cent to 890.7.

Financials rose 0.6 per cent to 8,995.4. Industrials added 0.3 per cent to 6,827.3.

Nikkei tumbles below 14,000

ASIA PACIFIC

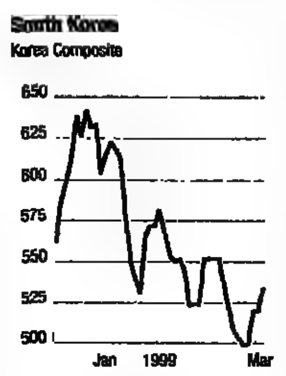
The unwinding of cross-shareholdings by corporations seeking to raise profits before the financial year-end continued to plague TOKYO and the benchmark Nikkei 225 average fell below the 14,000 level for the first time in two weeks, *writes Michiyo Nakamoto.*

The benchmark index lost 300.69 or 2.1 per cent to close at the day's low of 13,921.06, down from a high of 14,306.01. The broader Topix index of all listed shares fell 15.73 to 1,092.08 while the Nikkei 300 lost 3.5 to 217.89.

Trading volume was marginally up from 420.19m shares on Monday to 457.37m and declines were registered across the board in all sectors. However, rising issues outnumbered those which fell by 825 to 315 while 155 issues were unchanged.

Banks were hard hit as many corporations which have traditionally held bank shares sold them amid the broad trend to unwind cross-shareholdings.

Sakura Bank lost Y5 to Y253 and Sanwa fell Y27 to Y1,143. Daiwa Bank lost Y2 to Y177 on news that it would sell its headquarters in Osaka as part of its move to speed up the writing-off of bad assets.



Paper manufacturers lost ground after news that Oji Paper expects to post its first post-war parent net loss. Oji declined Y8 to Y570 and Nippon Paper Industries lost Y6 to Y440.

High-tech export issues also declined in spite of a recovery in the dollar's strength.

Sony fell again to Y8,690, down Y30, and NEC lost Y29 to Y1,134. Fujitsu, which announced it will slip into a net loss for the parent company, declined Y20 to Y1,425.

HONG KONG was lower as Tokyo's retreat triggered a round of profit-taking in banks and property stocks. The Hang Seng index finished 106.88 lower at 9,913.58.

Analysts noted that the market had gradually discounted possible good news from today's budget speech.

Defensive stocks were firmer with investors shifting their holdings from properties and banks to utilities. HSBC lost HK$4 to HK$219 and Cheung Kong ended HK$1 lower at HK$53.50 while Hongkong Telecom and China Telecom put on 10 cents each to HK$12.75 and HK13.55 respectively.

Red chips, which had risen on hopes of positive restructuring news from Guangdong Enterprises (Holdings), suffered steep losses after Monday's creditors' meeting and the red-chip index dived 4.8 per cent.

SYDNEY slipped in advance of today's GDP data and after a broadly soft day for commodity prices. Among resources, BHP lost 11 cents at A$11.79 and Rio Tinto 5 cents at A$20.40. Industrials were also dull.

Telstar shed 5 cents to A$8.45 and media giant News Corp came off 5.8 cents at A$11.59. The All Ordinaries index ended 18.3 lower at 2,892.8 in turnover of A$880m.

SEOUL jumped 2.7 per cent as the market reopened after a three-day weekend, posting a 7 per cent rally in two days. The composite index rose 13.91 to 533.97 as foreign investors were lured back by a stable yen and hopes of a further interest rate cut.

Belief that banks had finally built adequate provisions for their non-performing loans spurred buying in bank issues. Housing and Commercial Bank rose Won850 to Won19,800.

KUALA LUMPUR stumbled after selling orders ended an early rally. The composite index fell 5.51 or 1 per cent to 526.03 amid rising uncertainty over a forthcoming election in Sabah state on Borneo island.

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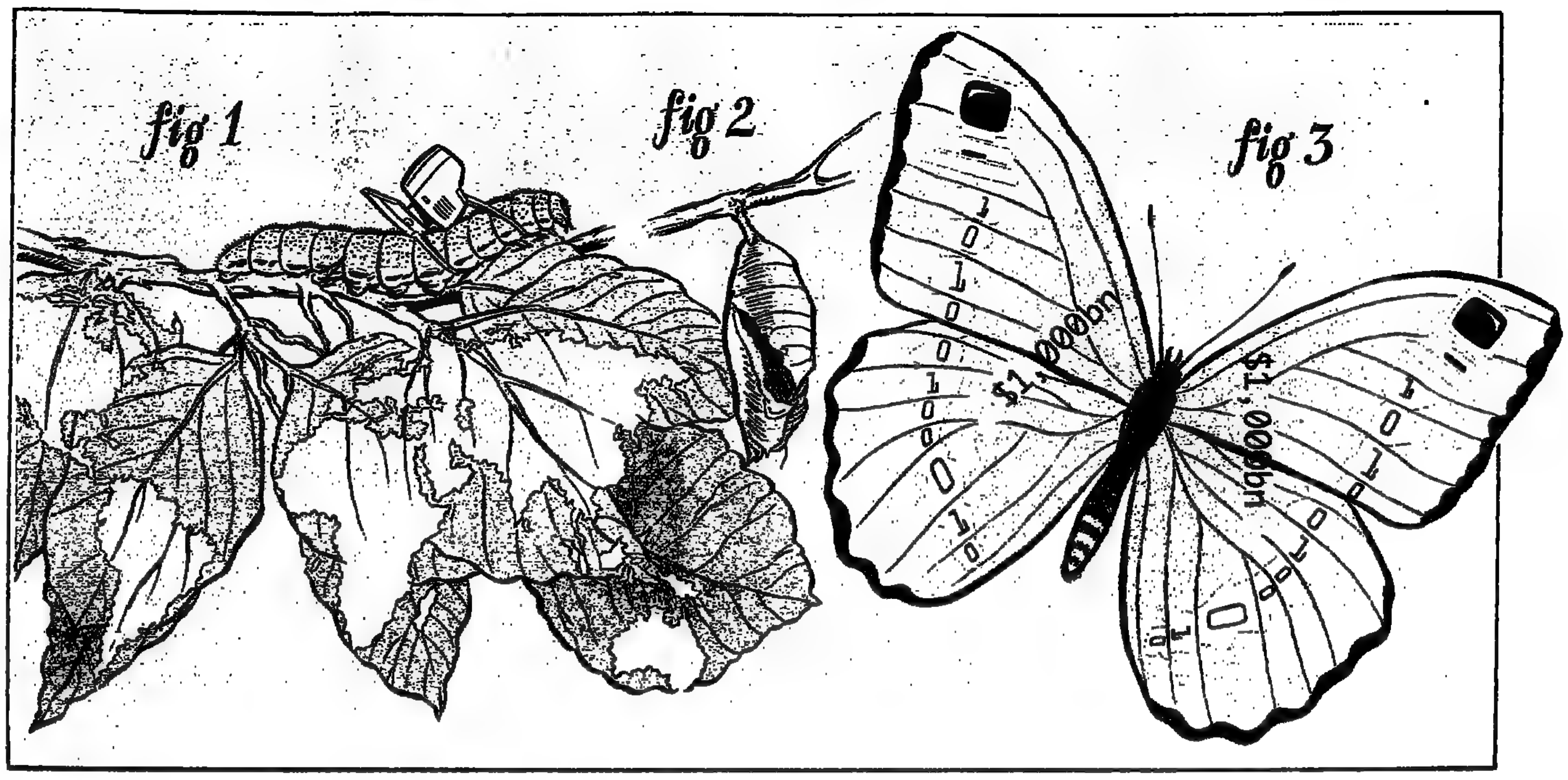


The world IT industry has metamorphosed into a trillion dollar market

Illustration by Mark Thomas

The struggle for survival in an IT-dominated world

The rapid progress of electronic commerce and the Internet are forcing companies to make some tough choices, writes **Paul Taylor**

The relentless advance of information technology and telecommunications systems has brought dramatic benefits to individuals, businesses and other organisations.

But now, as these technologies begin to mature and converge, they are beginning to drive business change ever more vigorously.

In boardrooms across the globe, executives are having to get to grips with the Internet and e-commerce revolution.

Many face the unpalatable choice of cannibalising their existing businesses to compete in the Internet era, or watching others do it for them. Either way, it is IT systems that will make the difference.

The biggest challenge that company boards face today is how to adapt their business processes to new trading models. In a very real sense, IT has come out of the back-room and into the boardroom.

While the first generation of business computers, mostly mainframe machines, automated traditional back-end processes like payrolls and billing systems, the second generation, built around personal computers, brought big gains in personal productivity.

Both were tools for change, but their impact was nowhere near as far-reaching as the the third wave of IT change, epitomised by the astonishing growth of the Internet since the mid-1990s, the deployment of distributed systems and the proliferation of IP (Internet Protocol) based services and products.

As Eckhard Pfeiffer, Compaq's chief executive, points out, each successive wave of technology has also brought with it an acceleration of the business cycle.

Business cycles were measured in terms of 10 to 15 years in the 1960s when the first commercial mainframes were deployed, shrank to between five and eight years with the arrival of mini computers in the 1980s, fell to between one and three years in the early 1990s as client/server systems spread and are now measured in terms of months.

In some industries, including the PC industry itself, product cycles are now as short as six months, leaving very little time for companies to recoup their investments in research and development, sales and marketing.

However, the pace of technological change shows no sign of slowing down. Based upon Moore's Law which suggests that computers double in power every 18 months or so, computers in 10 years time will be 1,000 times more powerful than those of today.

But the changes in a much shorter time frame will be almost as dramatic. Within the next few years the Internet will link 1bn people around the world in what Craig Barrett, Intel's chief executive, has described as a new "electronic continent".

A further 100m personal computers will be sold this year, boosting an existing installed base of perhaps 500m – roughly the same as the number of mobile phones in use today.

But while PC sales are expected to continue growing, many consumers will access the resources of the web – including interactive e-commerce services – through a new generation of smartphones, digital set-top boxes, personal digital assistants and other "digital appliances".

This represents a huge, new and geographically dispersed market opportunity for many companies. Indeed, the volume of electronic commerce in Europe alone is expected to soar from virtually nothing just a few years ago to over $64bn by 2001, according to Forrester Research, the US market research group.

The dramatic changes already under way in a host of industries ranging from banking and share trading to retailing and entertainment provide a hint of what may be in store.

In many of these areas, intellectual property is usurping physical assets as the most valuable commodity, digital distribution is replacing physical systems and "virtual" organisations are out-manoeuvring conventional business entities.

Meanwhile, fueled by the adoption of common digital standards, many of the remaining distinctions between different industries and market segments are disappearing in a process that has been dubbed "convergence".

This process involves many industries including computing, telecommunications, consumer electronics, media and entertainment. But the convergence of the computing and telecoms industries is perhaps the most spectacular.

For example, IP-based data traffic now exceeds the volume of voice traffic carried over traditional telephone networks in the US, Britain and several other markets.

Datamonitor, the UK-based market analyst, estimates that IP traffic is currently growing by about 1,000 per cent a year compared to public switched telephone network traffic growth of under 10 per cent. Provided new technologies can meet this demand for bandwidth, Datamonitor estimates that IP traffic will overtake PSTN traffic during 2000.

Separately, Datamonitor says that the Internet backbone market itself is now worth $8.3bn a year and will be worth $19.4bn in 2002.

Throughout the developed world, traditional telecoms network operators are building new IP-based networks in order to compete more effectively with a new generation of telecommunications companies like Worldcom and Qwest.

Moreover, after relying on the traditional telecommunications equipment suppliers to build their networks for decades, they have begun to look elsewhere.

The latest decision by Telia, Sweden's national telecoms operator to award a ground-breaking contract to Cisco, the world's largest data networking group, to build a national communications network highlights the changes that are under way in the $200bn a year market for large scale telecommunications equipment.

These changes have not escaped the attention of the big telecoms equipment manufacturers, many of which have historically relied on business from state-owned PTTs and often have little experience of the much more cut-throat data communications market.

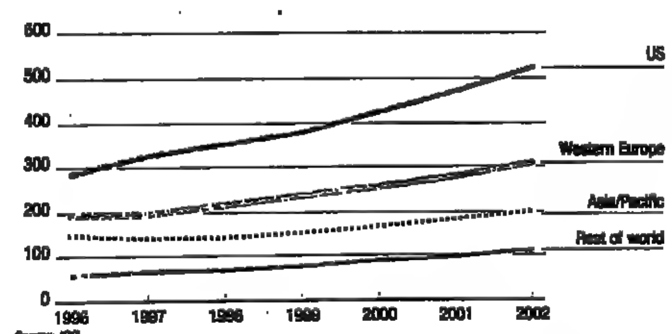
As a result, a full-scale battle for domination of the world's public network infrastructure has been developing between the older manufacturers of traditional telecoms equipment, such as Lucent of the US, Canadian-based Nortel and Alcatel of France, and relatively young "upstarts" from the data communications world like Cisco and 3Com.

In order to bolster their technology portfolios and data communications expertise, both Lucent and Nortel have made big data networking company acquisitions in the last six months. Lucent has acquired Ascend and Nortel has bought Bay Networks, while both Cisco and 3Com have been forging their own partnerships.

This process of convergence and the jockeying for position

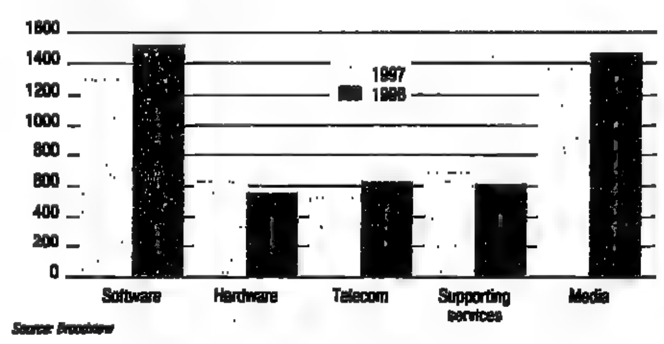
Turn to back page of section one of this two-part review

Worldwide IT market by region
at current exchange rates ($bn)



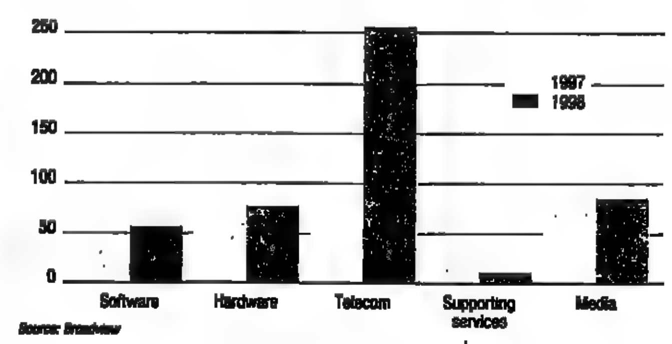
Source: IDC

Global mergers and acquisitions: the count increases in most sectors
Number of transactions by sector



Source: Broadview

Telecoms leads the rise in mergers and acquisitions
Transaction value by sector ($bn)



Source: Broadview

EDS deal livens up outsourcing sector

Companies are eagerly positioning themselves to take advantage of the growing trend towards outsourcing their IT activities, writes George Black

The fast expanding market for global outsourcing and systems integration has been shaken up by EDS's $1.65bn acquisition of MCI Systemhouse. The deal will put US-based EDS in a much stronger position in its constant competition with IBM Global Services, Computer Sciences Corporation, Cap Gemini, Andersen Consulting and others in that lucrative and hotly contested arena.

Systemhouse is the systems subsidiary of MCI Worldcom, the fast-growing US telecommunications company. When British Telecommunications bid for MCI, it was intended that Systemhouse would be merged with BT's own systems subsidiary called Syntegra. Negotiations were said to be already far advanced to merge the two when the BT approach was withdrawn in the wake of a better offer for MCI from Worldcom.

That left MCI Worldcom with a systems subsidiary which was in need of a world-class partner. EDS was clearly likely to be among the favourite alternative partners, since it was one of very few which were in a position to take on all of MCI's computing requirements.

The agreement between EDS and MCI involves a complex cross-outsourcing arrangement over a 10-year period, with EDS taking over most of MCI's data processing systems and MCI assuming responsibility for EDS's voice and data network. Thus the two companies will be bound very tightly together over a long period.

This mirrors the agreement formed between IBM, EDS's principal competitor in outsourcing, with AT&T, only a couple of months ago. In this contract, IBM Global Services took over AT&T's computing operations, while AT&T bought IBM's worldwide data network.

IBM had decided that the network was too expensive for it to maintain and was not a part of its core business. It wanted to concentrate on value-added network services and get out of maintenance of the infrastructure. Thus IBM and AT&T are also very closely linked in a long-term relationship.

This seems to be viewed by the senior managers of these companies as the best way of coping with the convergence of telecommunications and information technology. The EDS-MCI deal seems now to put pressure on Computer Sciences and the others to find themselves other suitable partners in the telecoms sector.

IT NEWS UPDATE

EUROPE'S IT MARKET

A demand for 'total solutions'

European companies' awareness of the need for investment in information technology has been boosted by the twin challenges of the year 2000 computer date change and the new single currency, the IDC research group says.

But corporate users' focus is now more on business solutions than on technological prowess. "IT decision makers in 1999 are not the same IT decision makers to whom vendors have previously had to take their message," the US research group states in a new study, *European IT Market Perspectives*.

Increasingly, the key person is a business director who understands business results, benefits and competitive advantage, rather than an IT manager familiar with technical details and specific technologies.

"This is perhaps the single greatest challenge for European vendors in 1999, to engage an entirely new attitude towards IT spending and IT strategy and to rebuild market perception."

Part of this change in thinking will involve a rapid growth in "application hosting" or "the information utility", as companies seek to shed costs and operational risks. This could be especially attractive to the small and medium enterprise (SME) market by allowing access to applications which would otherwise be too expensive.

Large companies, however, might take longer to accept the idea of surrendering direct possession of their own data on their own hardware. "The growth of web-based applications will help to speed the eradication of this resistance," IDC believes.

With worldwide IT spending expected to top the $1,000bn mark within the next five years other analysts' reports say it has reached that figure already the share taken up by the western European market is likely to remain fairly constant at around 28 per cent. This would mean a rise from the $216bn spent in Europe last year to more than $300bn in 2002.

But this will occur against an unsettled background. With European monetary union now a reality and signs of recession appearing next to the uncertainty of the millennium "bomb", the next few years could be turbulent for Europe, IDC adds.

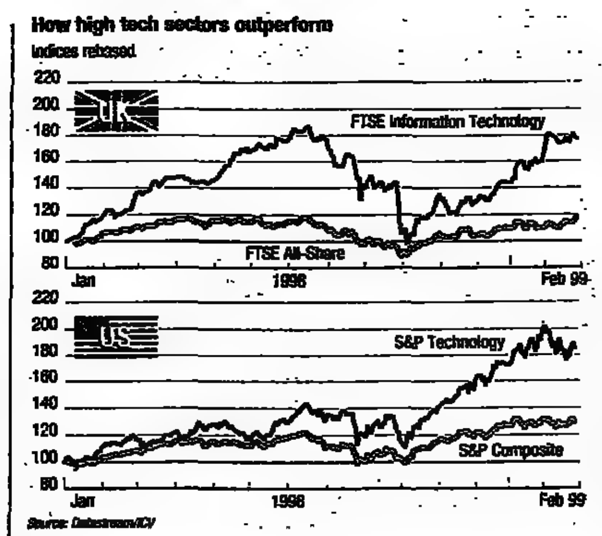
The euro is generally expected to be a success and European prosperity should be maintained into the next millennium. "Nevertheless, IT vendors would be well advised not to rely too heavily on the European market as a guaranteed source of sanctuary in the stormy global seas."

Yet however erratically the European IT market develops, one trend is clear – business users are looking for "total solutions". They want to buy their IT needs simply and efficiently from no more than one or two sources. "More and more, this means that products alone are not enough to win business.

"Services and support are an increasingly important component of any IT contract and, in many cases, now account for over 50 per cent of revenues. Customers want to buy solutions, not boxes of equipment."

Thus, both software and hardware companies are redefining themselves as "software and services" companies. "Hardware dinosaurs like ICL and Unisys have been reborn as service providers overnight," IDC notes.

IDC expects more acquisitions as IT companies manoeuvre for key positions in the rapidly coalescing "total solutions" market. "The Compaq acquisition of Digital will prove to be a taste of things to come in the IT industry as top vendors consolidate around a decreasing number of boardroom tables."



RESEARCH DIGEST

Internet trade still slow in Europe

Many Europeans are still reluctant to buy goods and services across the Internet, even though it has become a general purpose tool for many groups of people.

This is the conclusion of a study by International Data Corporation. Electronic commerce therefore remains in an experimental phase in western Europe, but it "is expected to really kick off in the next two years", says IDC. It is estimated that 10 per cent of the inhabitants of western Europe are Web users.

Overhauls for the year 2000

Many organisations have used the millennium "bomb" as a chance to overhaul their systems, putting them in a stronger position to face the future. This was the finding of research by PA Consulting Group. More now have leading-edge technology and a healthy relationship between information technology and other departments as well as better managed resources. Better recognition by senior management of the importance of IT is an added benefit.

Frame relay popular in Asia

Frame relay networking services have grown rapidly in the Asia-Pacific region and are set to continue that growth over the next four to five years, according to Yankee Group. The market will grow from around $415m today to more than $3bn in 2002, it says.

Many service providers report a doubling or trebling of FR revenues from 1997 to 1998. Telstra of Australia reported FR revenues up by 300 per cent and Japan's NTT recorded similar numbers. FR prices have been falling by 15 per cent per year in that region and are set to continue downwards.

Europe lags US in PC ownership

Around a quarter of European households now own a personal computer, but this is still well behind the US where penetration is almost double that level. A study by Inteco, the IT research company, found that 27 per cent of UK households owned a personal computer at the end of 1998, but only 11 per cent had some kind of Internet or online access. This belies the impression that the net is now a standard element of home PC usage and a driving force in the home PC market.

Residential ISDN set to boom

The residential market in Europe for ISDN (Integrated Services Digital Network) telecommunications technology is likely to see a significant increase, according to a study by Frost & Sullivan, the US research group. The residential area will be the main spur to growth for ISDN as a whole, it forecasts. Basic Rate Access ISDN is being increased by the spread of personal computers which produces demand for applications and easy access to the Internet. Until the recent fall in prices, ISDN was generally far too expensive for the home market.

Rough ride for ISPs

Independent Internet service providers face a rough ride in the next few years as competition intensifies, according to a report from Analysys, the European telecoms consultancy.

The independents occupy a precarious position in the Internet supply chain, it argues. They need to compete both in the infrastructure and in the service supply businesses, where US-based America Online and Yahoo! are redefining themselves as portals and shifting the main source of revenue generation in the residential sector away from basic access towards content-related services.

Telecom operators are now competing hard by using economies of scale on the network side. In addition, brand-driven ISPs such as the UK's Dixons are aggressively entering the market, leveraging their marketing, brand-name recognition and customer management skills to win subscribers.

Advice on middleware

Business computing users can now opt for a single strategic middleware product, advises Ovum, the IT consultancy. The use of several such products is uneconomic, it says.

"Multi-purpose middleware products will be the ones to survive in the marketplace, as most customers cannot afford nor justify the cost of multiple products," says the author, Rosemary Rock-Evans. Products are improving fast and can now offer several programming paradigms and methods of communication, the report adds.

ERP surges ahead

The market for Enterprise Resource Planning (ERP) systems is growing by leaps and bounds in Europe, according to a study by Frost & Sullivan. Revenues are expected to rise from $3.98bn last year to $18.75bn by 2004. It is the need to streamline business processes to gain a competitive edge which is propelling the growth.

Wireless data war hots up

The battle lines in the wireless data communications market have been drawn. On one side is Symbian, the consortium formed last year comprising Nokia of Finland, Ericsson of Sweden, Motorola of the US and Britain's Psion. On the other is a new alliance between British Telecommunications and Microsoft.

Having been left out of the Symbian alliance, Microsoft had no choice but to look for another partner and has been working closely with BT for some time. Both sides are researching ways of making it easier to send and receive data while on the move, particularly making use of the Internet.

Yet it is hard for analysts to judge which side has the advantage in this contest. Clearly, the Symbian group has the greater strength in hardware, since it includes the three largest manufacturers of mobile phones in the world.

Equally clearly, BT and Microsoft have outstanding skills in networking communications. But the real test may be in operating software and here it is less obvious which will predominate.

Psion's operating system for its hand-held personal digital assistants is believed by many experts to be superior to Microsoft's Windows CE, a cut-down version of its desktop operating system, especially in handling real-time data. But Microsoft has almost unlimited research resources.

Meanwhile, mobile users stand to gain from competition to bring them the best ways of accessing online services and exchanging information on the move.

THE MONTH IN BRIEF

Intel introduces new Pentium III chip

Intel has launched the Pentium III, the third generation of its microprocessor which drives most of the world's personal computers. The US company stresses that the Pentium III will make it much easier to display full-screen, full-motion video on PCs, which will blur the difference between a PC and a television. The first machines fitted with the new chips should be available in the next few weeks.

Microsoft accuses Netscape

Microsoft has accused Netscape of making untrue claims about its alleged attempt to divide the market in Internet software between the two companies. Microsoft's general manager of new technology said in the anti-trust trial in Washington that the allegations of an attempt to stifle competition were "absurd and untrue". In dispute is what happened at a meeting between the two companies in 1995.

Software AG to go public

Germany's Software AG, one of the longest established database vendors, is to float in what may be the largest software launch in Europe. The sale, in the second quarter of the year, is expected to raise at least DM1bn ($610m). It will be the only big software stock to join SAP on the Frankfurt stock exchange; more than half the share capital will be offered to German and foreign investors. Software AG raised 1998 pre-tax profits by 35 per cent to DM87m on sales up by 9 per cent to DM626m.

Softbank to raise $1bn

Softbank, the Japanese software company, plans to raise over $1bn to set up two new investment funds targeted at the Internet. This is part of the company's move from software distribution into becoming a major player in the Internet market. It now holds large stakes in some of the most important Internet companies such as the search engine Yahoo! and the online stockbroker E*Trade.

Sema profit up 31 per cent

Sema, the Anglo-French computing services company, raised operating profits last year by 31 per cent to £77.3m on turnover up 21 per cent to £1.25bn. Chief executive Pierre Bonelli said: "We have achieved the balance of business we have been working hard towards." Telecommunications now accounted for 20 per cent of revenue, compared to only 6 per cent in 1994. Defence had fallen from 22 per cent to 3 per cent in the same period.

CA buys CMSI

Computer Associates of the US has made another acquisition in the consulting and computing services sector in line with its avowed intention to diversify from software products into services. The latest take-over is Computer Management Sciences. CA will buy all CMSI's stock at $28 per share in cash. The deal has been agreed between the boards of directors. Last year, CA made a hostile bid for Computer Sciences which it later withdrew.

AOL advertising deal

America Online, the leading US Internet service provider, has agreed an advertising deal with FirstUSA, a major credit card company, thought to be the largest of its kind so far. It is hoped to generate $500m over the next five years. FirstUSA has also agreed smaller contracts for Internet advertising with Microsoft and Excite.

JBA management shake-up

JBA, one of the leading UK applications software vendors, has shaken up its management team, with Alan Vickery, former executive chairman, becoming non-executive in charge of strategy and planning. Ken Briddon has become chief executive. The company said it would fall heavily into the red this year. JBA competes with SAP and Oracle among others.

Morse to float

Morse, the computer systems company which distributes Sun Microsystems and Hewlett-Packard machines, is planning to come to the London stock market in the spring. The flotation is expected to value the company at around £300m. It should raise £130m, mainly to pay back its principal investors, 3i and PPM Ventures, for their holdings.

ICL wins £500m contract

ICL, the UK subsidiary of Fujitsu, the Japanese systems manufacturer, has won a £500m contract to supply Britain's Customs and Excise department with new computers. It heads a consortium that also includes Racal, Mitsubishi and Microsoft, which jointly beat a group led by BT for the job. The work will be carried out under the Private Finance Initiative, which means that the contractors will only be paid when it is complete.

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Dell slips, but HP delights

Two leading US computer manufacturers, Hewlett-Packard and Dell Computer, turned in lower than expected fourth quarter revenue growth. But Hewlett-Packard earnings were well above expectations, while Dell's came in below analysts' best hopes.

Dell's earnings were up by 55 per cent to 31 cents a share. This was in line with Wall Street projections, but analysts had hoped to see it improve on these. Its revenues for the quarter to end-January were $5.2bn, an increase of 38 per cent on the year before. Net income was $425m, a rise of 49 per cent.

Dell had increased its profit margins at the cost of revenue growth, said Tom Meredith, chief financial officer. The company would be more aggressive in reducing prices to boost revenues in the current quarter.

Hewlett-Packard earnings for the three months, in contrast, were well above analysts' estimates at 92 cents a share. This was up from 86 cents a share a year ago and compared with analysts' expectations for the computer, printer and electronics group of 83 cents a share.

However, the latest quarter included a gain of $20m from the sale of a semiconductor-related operation and benefited from a lower-than expected tax rate. HP's earnings from operations declined by 8 per cent to $1.2bn, down from $1.3bn in the same period a year ago. Net earnings were up by 3 per cent at $960m against $929m. Revenue for the quarter was $11.9bn, up only slightly from the year before. Computer revenues rose by 3 per cent, but sales of measurement products dropped 11 per cent.

Overall revenue growth was disappointing, Bob Wayman, chief financial officer, said. However, the weakness had been concentrated in two areas – measurement and Unix servers. "We've achieved a good profit outcome despite softness in some of our business and weak revenue growth," said Lew Platt, HP's chief executive.

For both Dell and HP, Europe was the fastest growing regional market. Dell achieved 40 per cent revenue growth in Europe, with sales growth in several countries topping 50 per cent. HP's European revenues were up by 9 per cent.

HP also noted some improvement in the Asia-Pacific region. Revenues had increased slightly from the prior quarter and orders were up strongly, HP said. Dell's revenues were up by 30 per cent in Asia and unit shipments grew at more than five times the market growth rate, said Michael Dell, the chief executive.

VIEWPOINT: ECKHARD PFEIFFER

An aggressive bid for Internet supremacy

Having achieved its business targets well ahead of deadline, Compaq is now striving to make a bigger impact across the networked world, writes **Paul Taylor**

Eckhard Pfeiffer has turned Compaq Computer into an IT powerhouse and the second largest computer group in the world since he took over as chairman and chief executive in 1991. Now he has set his sights on a new goal – Internet leadership.

Compaq's evolving strategy dates back to 1994 when the group, which built its reputation as a "clone-maker" of IBM-compatible machines, first ousted International Business Machines to become the world's largest personal computer manufacturer two years ahead of plan.

"We had worked so hard to get to this milestone," says Mr Pfeiffer. "When we got there, we realised immediately that there should already have been the next major goal – people were waiting for it."

To fill the void, he set up "the crossroad team", comprising about 120 senior managers. By June 1996, Compaq had a new mission – to evolve from the world's biggest PC maker into a global computer company by 2000. "More specifically, we said that by 2000, we were going to be one of the top three," says Mr Pfeiffer. Implied in that target was achieving $50bn of annual revenues; last year's total was $31.2bn.

Mr Pfeiffer created an enterprise computing group inside Compaq and restructured the company. "We had decided the goal-setting and what it would take to become a global enterprise computer company, we had defined what were the needs, what would we build internally, where would partnering do the job, where would we have to make acquisitions and the likely candidates and so on. From that point on, we embarked on the strategy," he says.

The first acquisition was Tandem, and then six months later Compaq announced the Digital Equipment deal. "We made the step to number two worldwide computer company in '98, two years ahead of schedule," Mr Pfeiffer says with obvious pride. "In fact, during these last few weeks, we've initiated our next goal beyond the year 2000, and that is what we call Internet vision.

"It is a five-point strategy, the first of which is Internet-enabled enterprise solutions, the second part is what we call Internet PC and appliances, third is Compaq.com, the fourth is supply chain management and the fifth is AltaVista. We are using AltaVista [the Internet search engine created by Digital] as a definition for participating in the Internet world on a far broader scale than just in-house Compaq activity," he explains.

"Behind the Internet-enabled strategy is the idea that Compaq has been, and is right now, the leader in Internet-enabled computing solutions." Indeed, Mr Pfeiffer admits to some frustration that Compaq's role in the Internet is often underplayed.

"I was really glad when I discovered research showing that Compaq is leading the world market in terms of Internet-based server installations," he says. "Today, six of the eight leading Internet portal sites are running on Compaq equipment, four of the five most visited web sites are running on Compaq," claims Mr Pfeiffer. (That includes Digital Alpha servers as well as Himalaya mainframes from Tandem.)

In addition, he notes, the largest e-mail system in the world, the America Online system, with 40m users, runs on Himalaya Systems. "How did we get there? Well, the strength of the industry standards server is really at the heart of it; that is the unique element of our strategy. When you look at the competitors, they're all trying to really sell something else. "They're trying to sell their solution, which frequently is not an industry standard solution. So you end up with higher costs, you end up being pretty much locked in and you certainly do not have the most cost-effective solution.

"What we are emphasising is Compaq's total commitment to driving an industry standard deeper and deeper into the enterprise." To date, Compaq has shipped over 2m servers. "We will maintain that lead by focusing resources on it," says Mr Pfeiffer. Among the resources the expanded Compaq group can now call upon is Digital's Internet expertise.

"When you think about the AltaVista technology, it is not only the search engine, it is also a spectrum of Internet software of a general nature like encryption technology. We are uniquely positioned given the past, our market share position and our strong relationship with Microsoft."

As part of that relationship, Compaq and Microsoft announced in September that they will work together on "accelerating NT as a hardened, robust enterprise-level operating system". Mr Pfeiffer says Compaq's main contribution will be the expertise of former Tandem engineers who built the "non-stop" hardware which run many banking and other "mission critical" systems.

"We're doing it to support our own strategy and secondly because it will give the industry the next boost to take it [Windows NT] all the way to the corporate data centre."

Ahead of the launch of Intel's next generation Merced 64-bit microprocessor due next year, the 64-bit version of Windows NT is being developed on Compaq machines using Digital's 64-bit Alpha microprocessors. "You're getting a hardware platform that is far ahead of the most advanced Intel platform," says Mr Pfeiffer. "So as long as we can keep the leadership, Alpha has a place in the market.

"We're now designing the next generation of Himalayas around Alpha. Given the focus on industry standards, we see each level of high performance and mission critical computing evolving and converging around NT in the long run," he says. "The main strength behind this strategy is really the full leverage of the industry standard which the customer accepts as the most desirable and the most cost-effective solution."

At the other end of the computing spectrum, he believes that the so-called "appliance" or "thin client" computing model is still a long way away. "It hasn't

Turn to next page

Pfeiffer: 'Compaq is leading the world market in terms of Internet-based server installations'

The FT Review of Information Technology

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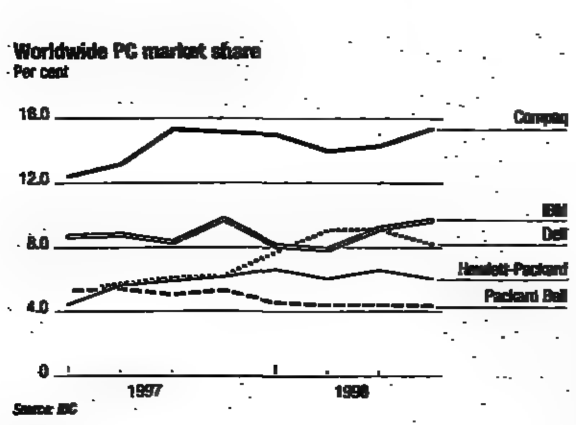
ECKHARD PFEIFFER

'The big pieces are in place'



From previous page:

happened so far," he says, but quickly adds: "On the other hand there is a, let me say, logic that would take you there.

"It's just a matter of when will the package come together. In other words, it's not just the power of the server, it is the operating system, it's the application, it's the technology in general behind it."

Meanwhile, although not everybody needs a fully-powered PC, most corporate buyers still purchase Compaq's highest specification machines. "There is still the mentality, as we go through the next cycle of upgrading, that 'we want the best, we don't want to be behind by the time we're installing it'."

What is more, "if you go back in the history of computing, the mainframe didn't go away when the mini came, and the mini didn't go away when the PC came; these things have huge, huge life-cycles". Nevertheless, he accepts that it is important to anticipate fundamental market shifts. That, he says, is why Compaq is emphasising its role not only as an Internet PC supplier, but also as a potential vendor of household information "appliances" which, at least for the moment, Mr Pfeiffer sees being built around Microsoft's Windows CE operating system.

"We have taken a very significant market share leadership by being present in the consumer as well as the commercial segment," he says. "I think many are discovering only now how important it was for us to make that move into the consumer space and take on market leadership. It brings it all together. The world is connecting the consumer with every commercial platform that there is out there, be it electronic stock-trading or Internet electronic commerce."

It is in the home that Mr Pfeiffer sees the biggest opportunity for appliances and has begun to position the company with a number of industry initiatives. For example, Compaq began shipping some of its consumer PCs with ADSL (Assymetric Digital Subscriber Line) modems in December.

"We have announced what we call our triple play. In other words, broadband technology to the home in each of these areas – the ADSL chip, cable modems and satellite. We have also announced a Compaq-led initiative to develop an industry standard for networking in the home using the telephone system. The fact that we take an initial position helps move the industry to a decision point."

The third strand in Compaq's new strategy is developing Compaq.com, the group's web site. "There are major initiatives under way to make it one of the world's leading web sites and electronic commerce contracting sites," says the Compaq chairman, adding that 35 per cent of Compaq's total European business in the fourth quarter passed through the site.

"We're working at pulling all the data together because we're much more advanced than we have taken credit for," says the Compaq chief. "We have our entire dealer network linked to it [Compaq.com] and so obviously that drives a pretty significant volume."

But visitors to Compaq.com can now also place and track a web-based order. This is an important departure for Compaq which, until recently had mostly relied upon its dealer-based indirect sales model to drive sales. Along with other indirect suppliers, Compaq has faced growing competition from direct vendors such as its arch rivals, Dell Computer and Gateway.

Unlike most of them, Compaq's market share has kept rising despite the challenge. "For each customer group we have a go-to-market model that is tailored to meet exactly their preferences. This is what we call 'customer choice'," says Mr Pfeiffer.

"If the customer choice is to buy direct, then the customer can do it. If the customer goes indirect or with a traditional distribution-based model then that is also available." So far, Compaq has managed to expand its direct sales business without alienating its traditional channel partners. Mr Pfeiffer claims this has been achieved by involving its channel partners directly.

"We have been able to jointly mark out a strategy that shows the future for them. We've called it the rules of engagement, so we have both sides committed. We review the actual functioning of it and modify and update it."

These "rules of engagement" set down who deals with potential customers – a process that has been evolving since the 1996 announcement that Compaq was aiming to join the top tier of global computer companies.

"When we made that announcement, we knew very clearly that meant we would take ownership of the customer relationship and that's the other key word. Compaq owns the customer relationship. That is a dramatic change over the last 15 years, where there was often a dealer out in front and we supported the dealer."

In Compaq's new multi-dimensional distribution strategy, the dealerships become an extended part of the main organisation which supplies the full range of products, services and support.

In future, Mr Pfeiffer says, Compaq dealers will be "a major factor in our total service concept in addition, of course, to selling products and solutions.

"We see our monthly share in the dealer channel and it has grown. They know it and while they say 'hey, what becomes of us?' We say, just look at it, watch it. What we are doing is making you more successful as well.

"I said that back in 1991 when we went through a very tough time, I said 'there is nothing more important to you guys than a healthy, strong Compaq. If we are strong, you are strong'."

At the other end of the manufacturing operation, Compaq's supply chain continues to be streamlined. "For the first time in the fourth quarter, we ran the PC part of Compaq's business with inventory turns of 30 which is a huge step function." Compaq now runs "direct configure-to-order for consumer products for small-to-medium businesses".

'It's not really a matter of company size, it's about what customers want and who can best meet those needs'

The final part of Compaq's new strategy involves AltaVista. In January, Mr Pfeiffer announced that AltaVista would operate as a separate company with a view to flotation at some stage. Since then, Compaq has acquired Shopping.com, an Internet commerce start-up, and struck a deal with Microsoft to supply search facilities for the Microsoft Network.

"Now we are working on all the other aspects of content and another major project that we call E-services, which I think is the next big step on the Internet," says Mr Pfeiffer. "Today, what generates revenues and profits, or margin let's say, is really electronic commerce and, to a much lower degree, electronic services."

For the moment, the Tandem and Digital acquisitions appear to have sated Compaq's appetite. Mr Pfeiffer says he expects most of growth in the future to be organic. "The big pieces are in place," he says. But does that mean IBM will remain much bigger?

"It's not really a matter of size," insists Mr Pfeiffer. "it's about what the customer wants and who can best meet those needs . . . and who is the best computing partner or business partner."

SEMICONDUCTORS by Paul Taylor

Brighter prospects in view

The potential is huge, but companies in the semiconductor market need deep pockets and nerves of steel

In homes, offices, factories and for people on the move, semiconductors have transformed our world, affecting almost all aspects of life from education to medicine and transport to warfare.

While the past three years have underscored the volatility and cyclical nature of the world semiconductor market, its long term growth has been driven by spectacular advances in semiconductor design, with sizes shrinking, prices tumbling and performance and power soaring.

Manufacturers have built chips and silicon "intelligence" into everyday items, accelerated time to market and increased product features. Thus microprocessors and embedded controllers are replacing electro-mechanical systems in a wide range of consumer and industrial products.

More chips are also being used in existing applications. The semiconductor content in everything from automobiles to dishwashers is soaring. According to Dataquest, the IT market analysts, semiconductors will account for 30 per cent of electronic revenues by the end of the decade, up from 16 per cent in 1994.

Yet the semiconductor market – especially in memory chips – is not for the faint-hearted. Deep pockets and nerves of steel are essential in a market beset by boom and bust conditions.

Last year, International Data Corporation, the IT research group, estimates the value of the worldwide semiconductor market fell by 9 per cent to $124.6bn, reflecting overcapacity not only in the D-Ram (dynamic random access memory) market which continued to shrink, but also in every other segment.

Unit shipments were flat, due to slower personal computer sales, particularly in North America in the first half, slower demand in Asia and higher levels of chip integration as chipmakers packed more functionality onto a single chip.

"Even the traditionally fast growing microprocessor and DSP (digital signal processor) markets were not spared," said IDC. Even excluding memory revenues, down 26 per cent for the year, the total market still declined by 5 per cent, with seven of the top 11 semiconductor groups showing sharp revenue declines.

The market for D-Ram chips – about 10 per cent of the semiconductor market – is driven by the supply, demand and price equation. The result is a classic industry investment cycle, says Malcolm Penn, managing director of Future Horizons, a Europe-based semiconductor industry analyst.

D-Ram shortages push up prices and profits, encouraging higher investment and new entrants. High profits enable the industry to increase investment, causing a capacity glut. Prices fall, profits shrink and there is a shake-out.

One answer is to outsource chip manufacture to "foundries" in the Far East, particularly in Taiwan and Singapore, says Curtis Wozniak, head of Electroglas, a leading US semiconductor equipment supplier. "It is a natural evolution for the industry as it matures."

In the D-Ram market, which suffered its third consecutive year of decline in 1998, the upheaval has occurred despite strong PC sales – the main market for memory chips. As Future Horizons notes, the most recent downturn resulted from over-investment in 1993-95. Manufacturers estimate world prices for D-Ram chips fell about 60 per cent in the 12 months to end-September 1998 after sharp declines previously.

Given the high incremental investments – a new chip factory or "fab" costs up to $2bn – and the long lead time for implementation, typically two years from decision to full production, a perfect supply and demand balance is impossible.

The problem is made worse by companies' fear of losing market share. This encourages chipmakers to delay closing surplus plant. Despite collectively losing $1.5bn a month, the industry only really began to cut capacity last year. In the first nine months, about $25bn in new factory investments was deferred or eliminated. The industry cancelled, delayed or closed 22 fabs. Texas Instruments quit the D-Ram market.

FT IT

The IT industry in transition

Here and on the following pages of this two-part review, FT writers highlight developments in the world's fastest-changing industry

However, there are signs that the memory market may have turned. D-Ram prices have firmed in the past five months – welcome news for manufacturers in Japan, South Korea, and Taiwan, which account for 80 per cent of production.

The average selling price of D-Ram chips rose by 9 per cent in November, following gains of 14 per cent in October and 11 per cent in September. November billings were the highest since October 1997, leading Future Horizons to state: "The worldwide semiconductor market is finally showing strong signs of recovery."

Analysts forecast growth of up to 11 per cent this year. This would result in a total market worth $140bn – back to its 1995 peak. Continuing strong growth is seen for Europe and converging telecoms and computing markets. By 2003, the world semiconductor market is expected to be worth about $232bn, with microprocessors, DSPs and application specific standard products showing strong growth.

Among the most promising segments are the PC market, accounting for more than a third of semiconductor consumption. This year, IDC forecasts that PC sales will rise by 12.8 per cent to just over 100m units. The telecommunications market, particularly mobile telecoms, also remains very strong.

These forecasts are welcome news for leading semiconductor makers. According to Dataquest, global revenues at seven of the top 11 manufacturers fell by at least 14 per cent in 1998. Among top manufacturers, only the three European chipmakers – Philips, Siemens and STMicrocroelectronics – and Intel, the industry leader, bucked the trend.

The biggest declines came at Japanese and Korean manufacturers including Hitachi, NEC and Samsung, all heavily reliant on D-Ram chips. Dataquest estimates that semiconductor revenues at Intel, which supplies most microprocessors used in PCs, grew by 4.3 per cent to $22.6bn. Intel's semiconductor revenue is now 2.7 times that of NEC of Japan, its nearest rival. However, the strongest performance was in Europe, with the three European vendors making it into the worldwide top 10 for the first time.

Intel, which this month will make its first court representations in a US anti-trust case, still dominates the PC microprocessor market. But competition with AMD and national Semiconductor's Cyrix unit, has intensified, especially in the fast expanding sub-$1,000 PC market. In response, Intel has been slashing prices on its low-end Celeron microprocessors.

Other companies, including Motorola of the US, are focussing on customised, highly integrated circuits. Motorola plans to tap its portfolio of 50,000 chips, including the PowerPC microprocessor, to compile a huge catalogue of modules and components for building "systems-on-a-chip".

Tomorrow's silicon will merge dozens of today's single function semiconductors on a single chip. Only the most complex systems will need more than a couple of chips; many products, such as GSM digital telephones, will have just one. This move towards integrating memory, logic, and other circuit types on to one silicon slice to create systems-on-a-chip is a key industry trend.

Aside from Motorola, STMicroelectronics, LSI Logic, National Semiconductor, VLSI Technologies and many other companies are targeting this market. System-on-a-chip sales, now only $4bn or 3 per cent of the world market, are expected to total $70bn by 2001 – triple the size of today's microprocessor market and 26 per cent of total chip sales. Other companies, including TI, are focusing on DSP chips to translate analogue signals into digital codes.

Despite the proliferation of semiconductor devices, this semiconductor revolution has only just begun. Even in the industrialised markets, most households still do not own a PC or cellular telephone. The potential is clearly there for explosive growth.

PERSONAL COMPUTERS by Tom Foremski

Prices fall as power grows

As the cost of PCs continues to come down, more and more consumers – especially in European markets – are digging into their pockets and going online

Just a few years ago, the main trend in personal computers was that the price generally stayed the same, but the system grew more powerful. During the past two years, the trend towards more powerful systems has remained the same, but the price has gradually fallen to ever lower levels.

These price pressures have shaved profit margins, creating big challenges for PC makers and winnowing out the weaker vendors. The main beneficiaries have been PC users and the largest PC vendors which have steadily grabbed growing shares of the total PC market.

According to Dataquest, the US market research company, Compaq Computer is the world's largest PC maker with a 14 per cent share, followed by IBM, Dell Computer and Hewlett-Packard. Dataquest expects these top four companies to continue to gain a larger share of the total market at the expense of smaller PC vendors.

For these top four PC makers, the strategy is to use economies of scale to make money in a very competitive market and keep up with ever lower PC system prices. One key strategy that has worked very well for Dell is the development of its web site, which allows customers to specify PC options and have quick delivery of systems.

This build-to-order model has shaken up the entire PC industry and forced Dell's competitors to try to emulate its business model. Compaq, for example, recently launched its Compaq.com business division to beef up its online sales.

And while profits on PCs have fallen sharply in line with price cuts, PC vendors have turned towards selling PCs bundled with computer peripherals, such as printers and scanners. This allows them to sell larger numbers of computer peripherals and differentiate their bundles from those of competitors.

Many PC makers have also cut back drastically on funding R&D projects which were used to create proprietary PC technologies.

Again, Dell has led the way, by spending very little on R&D and instead allowing Intel and Microsoft to establish PC standards which then become industry standards.

Intel has cross-technology licensing deals with all major PC makers, allowing it to establish PC industry initiatives that become widely adopted and help to maintain the PC platform as a relatively cheap commodity product and thus expand the total market.

Intel's efforts have also helped to drive down PC prices and produce faster systems because of competition from Advanced Micro Devices (AMD) and National Semiconductor's Cyrix division. These competitors are never more than a few months behind Intel's latest product introductions into the mainstream microprocessor market.

To try to throw off its competition, Intel has been ruthlessly cutting prices and bringing out ever faster microprocessors.

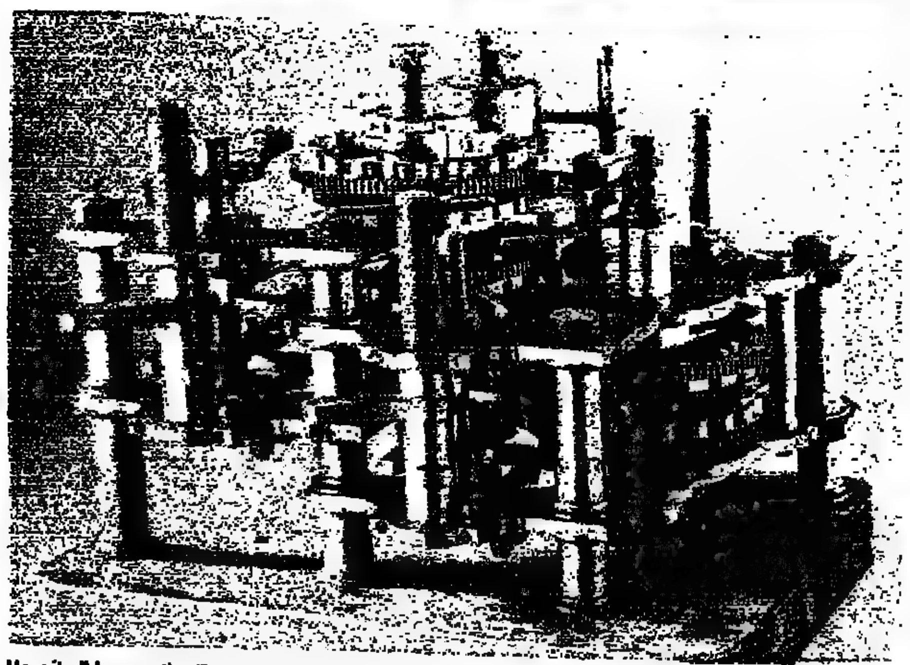
Intel's latest Pentium III family, for example, will probably reach a speed of more than 600 MHz by the end of this year compared with its current fastest chips running at 450 MHz. But Intel has to make sure that there is a need for ever faster PCs.

With the Internet as the main application for many PC users, and low to mid-range PCs perfectly capable of running Internet web browsers and standard business applications, such as word processing and spreadsheets, Intel must ensure that there is a need for ever faster PCs.

To that end, Intel has invested more than $1bn in companies developing applications that require fast PCs, hoping that, at least, some of those companies will create mainstream applications that will help it sell more high-end microprocessors.

But with its focus on faster microprocessors, Intel has been losing market share to AMD and Cyrix in the fast growing low end of the market. Inexpensive microprocessors from AMD and Cyrix have enabled PC vendors to sell systems for as low as $500. AMD managed to increase its market

Turn to facing page



How it all began: the 'Difference Engine', the first computer ever made, designed by the British inventor, Charles Babbage between 1823 and 1842. After he died in 1871, Babbage's designs for an analytical engine were largely forgotten until his unpublished notes were discovered in 1937 AP

PERSONAL COMPUTERS

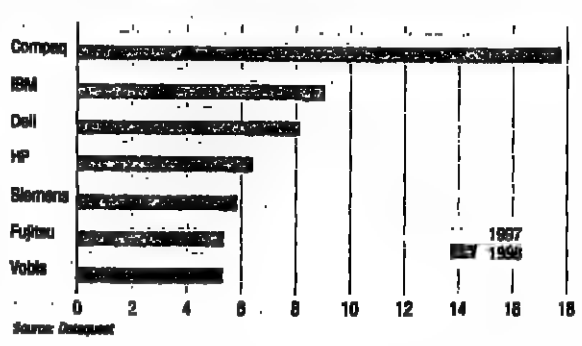
Strong European sales

From facing page

share to 15.4 per cent in the fourth quarter of 1998 against 6.6 per cent for the same period in 1997, according to IDC, the US market research company.

Intel has vowed to recapture lost market share with its low-end Celeron microprocessors, but the Celeron line has not been selling well despite the fact that it offers comparable performance with its more expensive Pentium II line.

European PC market share
Percentage of total market



Source: Dataquest

Extrapolating the PC trend to ever lower prices, National Semiconductor has virtually bet the company on leap-frogging Intel to produce a PC-on-a-chip with its MediaPC product due out later this year. By integrating on one chip many functions that would normally require several chips, manufacturers can cut their production costs. Brian Halla, chief executive officer of National, foresees a future where PC-on-a-chip products result in embedded PC systems in a wide variety of high volume consumer electronics, products ranging from cellular phones to digital set top TV boxes as well as even cheaper PCs in the $200 range.

"Over the past two years, we have been acquiring the various components needed to produce a PC on a chip and we are on schedule to introduce the first product this summer," says Mr Halla. "We have already received considerable interest in MediaPC, especially from European companies."

Creating a PC on a chip is not easy. It requires the combination of many functions that are currently handled by separate chip components. Testing the final chip is yet another big challenge.

National's MediaPC effort should give it a key advantage over Intel, especially with the current investigation by the US government into allegations that Intel has engaged in antitrust business activities. For Intel to produce a similar product, Mr Halla explains, it would need to acquire companies with key technologies. This would attract even further scrutiny from the US Federal Trade Commission.

For PC users, the future is clear: more powerful systems and cheaper prices, a combination that is bringing PCs to wider numbers of people, especially in Europe. Dataquest notes that PC sales in Europe have been among the fastest growing in the world, a trend that is likely to continue this year.

MAINFRAMES by Geoffrey Nairn

A new lease of life for heavyweight survivor

Rapid growth of the Internet and electronic commerce has helped revive demand for mainframes and the powerful performance they provide

Despite predictions of its impending death, the mainframe refuses to bow out from the industry it created more than 30 years ago. But as the performance and reliability of cheaper server technologies increases each day, even its most loyal fans know the sun must one day set on the mainframe.

In 1964, IBM unveiled its System/360 mainframe computer and ushered in a golden age – at least for IBM – of commercial computing in which the mainframe was invincible. But the generous profits created a climate of complacency and a belief that the mainframe could never be challenged.

IBM was slow to adapt to new trends such as the rise of personal computers and networking in the 1980s. Within a few years, Big Blue's problems were all too visible and the "open systems" movement was encouraging companies to abandon their expensive mainframes in favour of cheaper hardware and software based on the client-server model.

Events reached their nadir in the early 1990s when the company's share price hit rock bottom and the mainframe seemed destined to follow the dinosaur into extinction. But IBM was saved from the brink by a remarkable corporate turnaround and today's IBM is very different from that of previous decades.

In this era of the Internet and powerful PCs, the mainframe may seem an unwelcome link with the past. Indeed, IBM has rechristened its mainframes as "enterprise servers" in an attempt to downplay the word "mainframe".

But the mainframe still attracts customers. Last year IBM shipped 1,000 of its newly introduced "Generation 5" mainframes in just 100 days, making it the fastest selling mainframe in its System/390 family – the direct descendent of IBM's original System/360.

IBM shipments of S/390 computing power in 1998 increased by about 60 per cent, as measured in mips (millions of instructions per second, a crude measure of performance). But revenues actually declined because of the year-on-year price reductions.

Most of the customers are existing mainframe users who have held back upgrading in expectation of the new line. But IBM finds comfort in the fact they choose to upgrade rather than abandon the mainframe completely. According to mainframe fans, one of the factors driving this revitalisation of the market is the growth of the Internet.

"The last thing you want if you are running a big e-commerce site is performance problems," says Keith Gupwell, who heads DataDirect, a division of Merant, the Anglo-American software house formerly known as Micro Focus. Many organisations take their first steps into e-commerce by buying one of the new generation of smaller servers based on the Unix or Windows NT operating systems and linking it via a "gateway" to their ordering or stock control application running on their mainframe. According to Mr Gupwell, this is not the best solution as the web server can quickly be overwhelmed if the site receives too many hits. If server performance becomes unacceptably slow, the risk is that online customers will go elsewhere in frustration.

Ed Zander, chief operating officer of Sun Microsystems with Sun's Starfire Ultra Enterprise 10000 server which is claimed to compute at speeds up to four times faster than mainframe computers AP

E-commerce

"The traditional way to gain access to data on a mainframe is via gateways," he says. "This is fine for low volume transactions but there is a constraint of performance and under e-commerce, there is a risk that it will not stand up." DataDirect offers "middleware" to make it easier to access information stored on mainframes networks using modern software technologies such as Java.

Mainframes are promoted by IBM and others as ideal servers for e-commerce because of their superior "scalability" – meaning the ability to increase performance easily by upgrading the system. "With the explosion in e-business transactions, customers need highly available computing power that can be increased rapidly to handle that demand," says Brenda Zawatski, director of enterprise systems in IBM's S/390 division.

The S/390 G5 is IBM's first mainframe to deliver more than 1,000 mips. It is ideally suited to new Internet applications, IBM claims, and in a recent benchmark test, a 10-processor version of the S/390 G5 running as a web server handled a record 21,591 hits a second – a 50 per cent increase over the previous record.

Today's mainframes have little in common with mainframes of past decades. For one thing, they no longer need expensive water cooling as they now use processor technology similar to that used in PCs.

"The technology has changed dramatically and today's mainframes only use 5 per cent of the energy of water-cooled predecessors," says Peter Jilek, head of mainframes at Siemens, the German company. Siemens is one of a handful of competitors selling IBM-compatible mainframes. Faced with declining mainframe sales, vendors such as ICL (owned by Japan's Fujitsu) and Unisys of the US are focusing strongly on services and software for their growth.

Siemens, however, claims it is still committed to the mainframes although it no longer makes them itself; three years ago, it decided to buy in hardware from other vendors. "It was not an easy decision to take, as traditionally Siemens has developed everything in-house," says Mr Jilek.

For future growth, Siemens is looking to a new range of low-end mainframes based on the same off-the-shelf Risc processors used in Unix servers. "It is the first mainframe operating system to be ported to a standard processor architecture and the per-user cost is similar to that of a Unix system," he says.

The traditional distinction between mainframes and servers is blurring. Sun, for example, recently unveiled its new E10000 range of "mainframe-class" Unix servers with mainframe-like features such as "partitioning" that allows different jobs to run on a single machine – a characteristic of mainframes.

Chris Sarfas, Sun's product marketing manager, believes Sun's systems will ultimately out-perform S/390 mainframes. But he accepts that traditional mainframe customers are not going to change overnight. "If they have spent $3m on a mainframe, they do not want to have to admit they were wrong," he says.

Software piracy is a serious problem for the IT industry in many parts of the world. The Business Software Alliance estimates that in Russia, for example, up to 95 per cent of software is pirated, although most of this is for personal computer use; see report on page 16 of this review. In China, pictured above, a steamroller is used to crush thousands of pirated compact disks, video tapes and software items during an anti-piracy crackdown AP

COMPUTER SOFTWARE by Philip Manchester

Revenues soar but users are cautious

The spread of IT into all corners of human activity has led to a huge expansion in the software industry, though big problems remain to be solved

The computer software industry is a phenomenon by any standards. It is just over half a century since Professor Tom Kilburn wrote what is generally acknowledged as the world's first computer program. And yet in this short time the software industry has created unprecedented wealth from no more than some clever ideas encoded as a stream of electronic signals.

The software industry proper is, of course, only about twenty years old – with leading companies like Microsoft, Oracle and SAP – growing from their humble beginnings in the 1970s to become multi-billion dollar global corporations.

Software has enabled the power of the computer to reach into every corner of human activity – from controlling massive telecommunications networks to providing education, from running entire international corporations to innovations in home entertainment. Worldwide revenues from sales of software are immeasurable – especially because some is distributed electronically though the Internet.

But taking only the revenues of the main suppliers, the total runs into tens of billions of dollars. According to research company IDC, world-wide revenues for enterprise resource planning packages alone will top $30bn this year. While ERP is an important market, it is only one of many equally lucrative software markets.

Despite its vast size and its enormous potential for growth, the software industry faces the new millennium in somewhat of a crisis, however. The embarrassment of the year 2000 date problem together with the persistent failure of business packages to deliver on their promise has tarnished the industry's image and led users to become more cautious.

A survey of Europe's top 500 IT spenders last month by research company Spikes Cavell for the industry periodical IT Week, found that spending on IT fell for the first time in five years. The 4.23 per cent drop to £49.5bn ($80bn) is attributed to a combination of year 2000, the introduction of the euro and skills shortages.

At the same time, software production, distribution and support structures are changing quickly. Increasingly software applications are built using sets of "components" rather than as unwieldy monolithic programs. Not only does this cut development costs, it also brings other benefits such as easier maintenance and more flexible applications.

Leading ERP package suppliers such as SAP of Germany, Baan of the Netherlands and Oracle of the US are turning to component-based architectures to maintain their market edge. IBM and Microsoft among others are strongly promoting component-based models – albeit different ones – for IT infrastructure software.

The use of components makes it easier to distribute and support software electronically. This makes software the ideal product to sell over the Internet – opening up a new channel for software distribution.

Pressures

The combination of component-based development, the Internet and a knowledgeable and demanding market is a formidable challenge for even the largest software vendors. "We are facing the biggest structural change in the history of the software industry – and it is the Internet which changes everything," says Tom Siebel, chief executive of US-based Siebel Software – one of the rising stars in the software market.

"We saw a lot of old companies get left behind in the shift from mainframe to client/server computing. But that was a relatively slow process compared to the current shift to the Internet. I can't see those client/server systems being modified – they will have to be re-written," Mr Siebel continues.

He sees one of the main changes caused by the increase in Internet activity as occurring in the very heart of the software industry. "Today, software vendors can sell products that are unusable when they ship – you have to buy in services and support to get them to work.

"But with the Internet the industry must deliver instantly-usable components to the desktop because that is what the market wants. I think it will happen with blinding speed and when it does some companies could crumble away very quickly."

Mr Siebel sees the next two years as extremely volatile because of these changes and says some top software companies could face tough times.

Andy Joss, chief technologist at German software company Software AG, which will shortly list its shares on the Frankfurt stock exchange, also sees change coming – although from a very different source.

"There has been a lot of talk about how the Internet will change things – particularly in the area of software. But few companies are getting the most out of it as yet. There needed to be an event that took the Internet away from PC technology and I think that event was the launch of digital television."

He adds that digital television opens up the Internet to a mass market and makes electronic commerce viable. "Digital TV might seem just another way to deliver entertainment – but it is much more.

"We have been working with [Britain's] Sky TV and they recognise that it is really about interactivity and connecting the home TV to the Internet. Sky could have a huge influence over distribution of software."

Mr Joss sees significant changes in the way that software is licensed as a result. "The only way we can build software quickly enough is to build it as components and that opens up the possibility of 'pay-per-use' models for charging fees. "While the future of software seems certain to be component-based and Internet deliverable, it will not happen until the network infrastructure – and the market itself – is ready," he says.

Nick Shelness, chief technology officer at Lotus Development, notes that an early experiment to deliver component software – under the product banner E-Suite – was disappointing.

"I think we were a little too early – but we are continuing to work on E-Suite as a set of components in anticipation of a move in this direction," he says.

The finance sector invests more in software systems than any other part of the business world. In San Francisco, traders, above, on the Pacific Stock Exchange check the Dow Jones rise on computer screens AP

In Tokyo, computer enthusiasts buy Japanese versions of Microsoft software AP

CONSULTANTS by Philip Manchester

Advice on the why as well as the how

As the boundaries between business and technology strategies become blurred, the role of consulting is being redefined to focus more on results

Business and information technology are now so closely tied together that it is hard to draw a distinction between them. No organisation would plan a new venture without first considering the IT systems needed to support it – indeed, many business opportunities in the emerging electronic commerce environment rely entirely on IT.

At the same time, IT increasingly needs a strong business justification. Few business people would consider installing IT systems unless they held out the promise of direct benefits.

The line between management consultancy and IT consultancy is also becoming blurred. Business consultants now usually base their recommendations on the opportunities offered by IT; specialist IT consultants put growing emphasis on complete business "solutions".

Two technology trends have brought business and IT together as never before. The ubiquitous Internet connection has the highest profile. But the so-called "componentisation" of software – where software is broken down into re-usable modules – is of equal importance. IT systems are increasingly assembled from software components rather than built from scratch.

As a result, consulting companies on both sides of the traditional divide recognise that their role is changing. "The job of technology consultants has changed a great deal – the Internet is not just a technology it is a way of doing business," says Lawrence Holt, chief executive of Quidnunc, a UK-based IT consultancy.

"This means that the distinction between the business and the technology is blurred. Every project we do now is component-based where it used to be a package or customer-built software – now you can mix and match components."

Rolf Sackmann, European head of PwC management consulting services, says consultancy work is no longer just about the strategy – "it is about controlling the complete life-cycle of a business application.

"If you think in terms of yesterday, today and tomorrow – then yesterday, business consultants were concerned with strategy and performance improvements. Today, the role has expanded to include implementation and running applications. And tomorrow, I think it will be about portfolio assembly – building applications from components and managing the life-cycle."

Jim Patience, head of Computer Sciences Corporation's (CSC) UK consulting and system integration operations, also sees the convergence of IT and business changing the role of the consultant.

"We see it as very important to be able to offer an end-to-end service from high-level management consultancy, through implementation, and then on to managing outsourced applications. It's about delivering business results rather than just advising businesses about strategy."

Pierre Hessler, an executive member of the Cap Gemini board and chairman of its Gemini Consulting group, sees any remaining distinction between management and IT consultants in terms of the practical roles they play.

"Distinguishing between business and IT is more difficult than it was – but there is still a difference between strategic management consultancy and IT consultancy.

"But the strategic consultant who does not understand the technology is lost," he explains. "We consider them as quite separate and develop the two professions in parallel and then look for some sort of convergence,but it is rare to get someone who can combine the two."

Pierre Hessler of Cap Gemini insists that relationships with product suppliers are non-exclusive

While the convergence of business and IT is widely accepted as a fact of modern business life – both by traditional management consultants and by IT consultants – it raises questions for businesses. Top of the list is the question of independence. Consulting organisations of all shades are increasingly tying themselves to specific technologies, especially in the burgeoning enterprise resource planning market.

"A few years ago, only 25 per cent of our work was related to software packages; now it is between two-thirds and three-quarters," says Cap Gemini's Mr Hessler.

"A number of clients might doubt our independence as a result of this – but that is why keep our consulting operation autonomous and we insist that any relationship we have with a product supplier is non-exclusive."

A similar argument is put forward by Mr Patience of CSC. "Obviously, we do not have all the components we need to build IT systems for our clients, so we have alliances with product vendors. But we insist on non-exclusive deals, and alliances are formed for a specific proposition. So with ERP packages, for example, we have alliances with SAP, Baan and Oracle where they are suitable for the specific client."

Some go even further and suggest that the consultant has a new role to play as a "service broker" – acting as an important link between the business user and the IT department. "Businesses want a quick solution because time-to-market is so important," says Mr Sackmann of PwC.

"They are looking for a new model for their use of IT and the IT department cannot fill that role. There is a role for consultants to act both as user champions and co-ordinate IT services from the IT department and other sources - outsourcing, for example."

John Emberton, consulting director at Sema Group Consulting also sees an important role for consultants as brokers of a different kind. "With the huge amount of merger and acquisition activity, there is a unique role for consultants as 'honest brokers' between the two parties of a merger.

While the deal is being worked through and gaining approval, the two parties are still competitors and need someone who can look objectively at their IT systems and the cost of bringing them together. We can do that without either party finding out too much about the other – in case the deal does not go through."

The traditional, cynical view of consultants is that you lend them your watch so they can tell you what time it is. But in today's technology-driven business environment, successful consultants of all types need expert knowledge about how the watch *works* – and an understanding *of why* you need to know the time in the first place.

UNIX VERSUS WINDOWS NT by Rod Newing

Learning to live with each other

As users assess rival operating systems, they are basing their choices on flexibility as well as robust performance

Microsoft once claimed that its new Windows NT operating system would kill off its longer-established Unix competitor, but most companies will continue to use both for a long time to come.

"Most large organisations implement multiple systems, so they are not choosing which to support, but which to implement for a particular application," says Mark Raphael, programme director for server strategies at Meta Group, the independent analysts. Most third party software vendors presently support a large number of different operating systems, which is very costly.

They will only support only the fastest-growing products, bring about the long overdue consolidation in the Unix market, which has 25 versions, none of which is fully compatible.

Consolidation is also being driven by the need for the operating systems vendors to rewrite their software to process data in parcels of 64 bits, instead of the current 32 bits. They also need to adapt the software to run on Intel's new generation of 64 bit processors, code-named Merced.

These will be much cheaper than the reduced instruction set computing (RISC) processors on which most versions of Unix currently run. Siemens has moved to Sun Microsystems' Solaris as its new operating system, along with NCR, Fujitsu and Toshiba. IBM is combining its AIX version of Unix with the Santa Cruz Operation's UnixWare version, which is the market leader on the Intel platform.

Sequent has also adopted this in place of its own version of Unix, while others are expected to follow. "Intel, together with the PowerPC and UltraSPARC versions of RISC, are the chip architectures that will continue to grow," says Mr Raphael.

"They will be running Sun Microsystems' Solaris, Hewlett-Packard's HP-UX and AIX/UnixWare. Our strong advice to users is that if you are not on one of those three, you must plan your migration over the next two years."

User organisations still have to choose whether to use a version of Unix or Windows NT. Data General is one of many hardware vendors that supports both. It has its own version of Unix, but is looking at AIX/UnixWare. Customers are not looking at operating systems, but applications, says Linda Mentzer, vice-president of server marketing.

"If both NT and Unix are supported, the decision is made on factors such as the computing environment, the size of the database, the number of users, disaster recovery implications, existing skills and the price/performance offered. Customers really want the application availability of Windows NT and the features and functionality of Unix."

However, John Oltsik, senior analyst as Forrester Research, predicts that Solaris and Linux, the freeware version of Unix, will be the only two versions of Unix that matter in the low and mid-range.

"Solaris owns the market now, but second-tier vendors such as Compaq, Sequent, Data General and Silicon Graphics, will adopt Linux," he suggests. "It leads in Internet computing and is stable, scalable and free. Also, the big support organisations, such as Compaq and IBM Global Services, are providing mainstream support."

Thirty years of Unix

Unix is a popular, multi-user operating system that was written in the late 1960s at the AT&Bell Laboratories in the US. The second version of Unix was written in C, a processor independent language, making Unix the first operating system designed to be easy to port to new computing platforms.

As a result, at least two dozen versions are available for computing systems ranging from mainframes to PCs. Unix systems are very scalable – in other words, it is relatively easy to add processing power across a wide spectrum of requirements.

In 1993, Novell acquired the rights to Unix's source code. Unix vendors now are looking to the Java programming language – introduced in 1995 – to offer cross-platform application capabilities.

Michael Wiltshire

Scalability continues to be the major differentiator because Windows NT currently only runs on eight processors, whereas Unix will run on as many as 64 processors in a single machine which can be increased by linking several machines into a "cluster". However, these higher-end solutions are still relatively rare. "Unix will be three to six times more scalable and reliable than NT for the next three to four years," says Mr Raphael.

"Unix gives 99 per cent availability out of the box and Windows NT gives 96-97 per cent, which is a big difference in terms of hours. With clustering, NT will go to 99 per cent, but you can go to 99.95 or 99.99 per cent relatively easily with Unix," he adds.

At the top end, Unix has

Turn to facing page

MANAGEMENT OF INFORMATION by Rod Newing

Filling in the IT roadmap

As the need to organise complex information from different sources becomes more widely recognised in the corporate world, metadata is acquiring a higher profile

Metadata is essential to the successful management of information, yet it is fragmented across the organisation and needs to be integrated. All organisations rely on heavily on metadata, or information about information, to build their business processes and provide management and marketing information that keeps them ahead of the competition.

Yet although essential for the effective management of information, metadata is a topic that has traditionally been confined to the IT department. However, the arrival of end-user data access tools is raising the profile of metadata and exposing some problems that need addressing.

At its simplest, metadata is data about data and its purpose is to document, describe and explain the otherwise meaningless numbers and characters that are stored in a database. It explains what it is, how it is represented and how it is used. In effect, metadata provides a business model of the organisation, its customers, products and business rules, allowing data items to be related to each other to provide meaningful information.

"It is like adding roads and railways to a map that contains only towns," says John Spiers, marketing director for integration at Forté Software, an integration products vendor. Metadata also contains integrity rules to validate entries in order to prevent errors. The metadata is stored within the database itself. This means that it is spread throughout the organisation in every database, in different formats.

This fragmentation means that metadata is found in transaction processing systems, data warehouses, configuration tools, spreadsheets, network management tools and web pages. This means that it is incomplete, hard to access and has to be built from scratch for each new application or database. Few organisations have created enterprise-wide metadata and few tools exist for doing so.

Information has no value unless it is understood. Metadata enhances the value of corporate data by unlocking it from its underlying systems

Metadata has always been used by IT departments for building transaction processing systems. They can then react to changes in the business environment by accessing it to quickly change business processes. It lay at the heart of Computer Aided Software Engineering tools, but the tools were never widely used.

"In extreme circumstances, organisations have had to cancel business plans or call off mergers because of the prohibitive time and cost associated with adapting or integrating systems," warns Mr Spiers. "For instance, a merger may hinge on synergies between two customer bases, but customer data must be integrated by linking two systems through metadata. At the very least, organisations are unable to manage their businesses effectively because of their inability to access and utilise their information."

The issue of metadata has come to the fore with the creation of a data warehouse architecture that provides a separate database of integrated data for end-users to access for decision support. Although creating metadata is an essential part of building the data warehouse, the resulting data store has no value to the organisation unless the end-users understand the data within the warehouse.

"Understanding the data was 80 per cent of the effort," says David Buch, IT director at Capital One Financial Services, a US credit card issuer. It has created an "Information Based Strategy" that gives its users access to three terabytes of data, one of the largest databases in the word. "Most of the time is spent finding out what the data means and we often deal with inaccurate or missing documentation and reconciling differences in data definitions."

Many organisations have different definitions of basic terms, such as "customer" or "week" in different departments, so the first and most difficult step in managing metadata is to agree on a common set of definitions.

"It is important to ensure that users understand the data," says Julie Pratten, Manager of the Management Information Project at National Westminster Insurance Services, one of the largest independent insurance intermediaries in the UK.

"Using SAS/Warehouse Administrator has highlighted the differences across the business units in terminology, so we have helped the business to agree a standard set of data definitions and terminology that everybody understands. This has improved communication and bought the different business departments together."

Building a data warehouse usually involves dealing with metadata in each of the operational databases and recreating it in the data transfer, data warehouse building and data warehouse management tools, as well as in the data warehouse, subsidiary data marts and each individual data access tool. The Metadata Coalition is working to enable the interchange of information between these tools. It follows an earlier failed attempt by IBM to create a repository, or metadata database, that would work with all software development tools.

"The goal of metadata integration remains as elusive as ever," lamented Sean Kelly, Managing Director of the Data Warehouse Network, in a speech last year. "The Metadata Coalition is extremely disappointing, but it has to work with 200 vendors in order to succeed."

"Every organisation has fragmented data sources, so you need an integrated metadata layer, which I call an 'information utility'," says Jonathan Steele, founder of researchers and consultants The Bathwick Group.

"No product fulfils the purpose, although there are some small companies who are working on the problem."

Mr Steele believes that it is not in the database or application vendors' interests to create an independent metadata layer because it would help users to "mix and match" databases or applications.

Microsoft has also developed a repository, but he says that it was designed for storing business objects for applications to access, not metadata.

Information has no value unless it is understood, so it needs to be described, explaining what it is, where it has come from and how it is used. Metadata enhances the value of corporate data by unlocking it from its underlying systems so that it can be deployed more flexibly, reducing the cost of managing and maintaining the underlying systems and allowing end-users to fully exploit it.

"There is an enormous gap for an information utility," believes Mr Steele, "but it needs Microsoft to fill it. It is the only company that has thousands of partners with a vested interest in its success."

Keeping track of data: in the US, Randall Decker, a tape librarian, places data storage tapes on racks at Pennsylvania's state data centre in Harrisburg AP

A special issue of the FT-IT Review on the theme of Knowledge Management will be published on April 28 in our new series on Business Solutions. For details of the forthcoming themes in the FT-IT Review, see information panel on page 24.

Surrounded by technology: after a busy day for New York dealers, paper litters the stock exchange floor AP

UNIX VERSUS WINDOWS NT

Skills shortage is a key issue

From previous page:

been squeezed by mainframe operating systems, such as as IBM's OS/390, which have a long track record in providing availability and scalability and have become available on much cheaper machines. However, the industry is busy trying to incorporate mainframe manageability features into Unix, such as Siemens putting its mainframe experience and features into Solaris. However, Microsoft is also pushing mainframe management capabilities, but it has further to go.

"The Unix vendors have their sights on pushing into the traditional mainframe space," says Mel Earp, technical director at Sema group, the European systems integrator.

"Mainframes will suffer a long-term squeeze, rather than instant death, with Unix and NT finally being the only two left on the planet. It would be bad if Windows became dominant in the server space, as it did on the desktop, as we would lose competition and innovation."

NT already leads on application availability and is the first port for most applications," says Mr Raphael.

"It is particularly strong in Europe, as it suits the geographically distributed organisation structure of many European companies. Rather than supporting hundreds or thousands of users from central application servers, they are supporting tens or hundreds locally and NT can fit that requirement well."

John Bittman at GartnerGroup, the independent analysts, is forecasting that by 2003, Microsoft will achieve a share of 70 per cent for servers under $100,000 and 20 per cent above that figure.

He believes that the current technical advantage of Unix over NT will disappear, but the demand for experienced NT skills is higher than supply and the gap will increase as Windows 2000, the next version of NT, requires retraining.

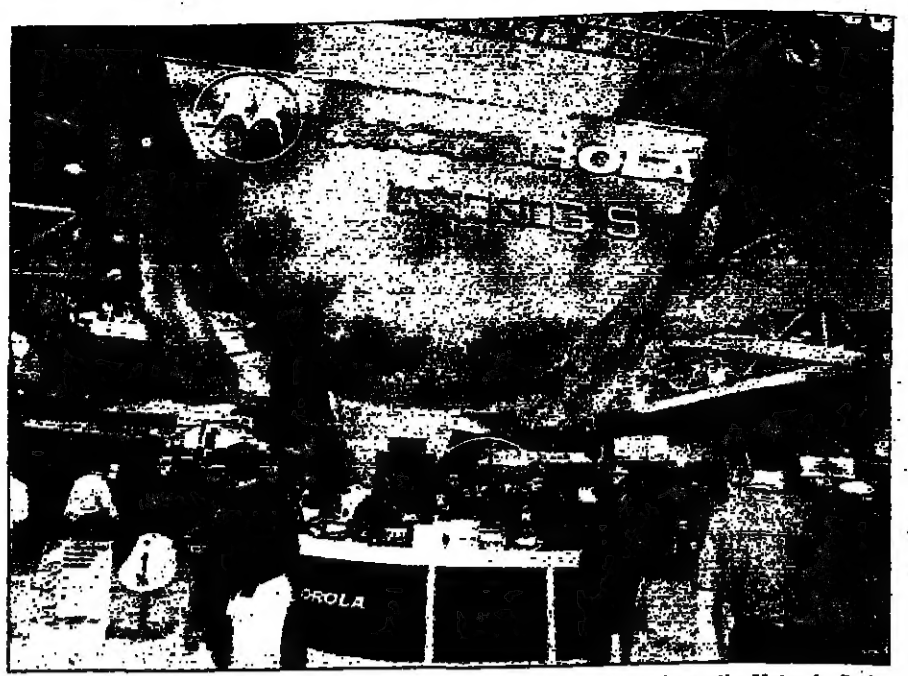
"The impression is that NT skills are many and cheap, but in reality they are all teenagers," he says.

"Skills costs will become a differentiator because 80 per cent of the security and availability problems we see today in the NT environment are not caused by technology but by skill problems."

MOBILE COMPUTERS by Christopher Price

More products emerge for growing niche markets

Consumers face a confusing choice in the *market for mobile computers. In future,* communications integration will be an important feature for portable devices



Networked world: visitors attending the Wireless 99 Convention are pictured near the Motorola display at the New Orleans Convention Center. A new flurry of telecommunications alliances should hasten the day when consumers can use their mobile phones and portable computers to check their e-mail, access data from their desktop PCs and navigate the internet AP

Having developed so rapidly in the past three years, the mobile computer market is unlikely to slow down in the face of rapid technological change.

Developments in mobile communications, electronic commerce, business software and screen design are all likely to make significant contributions to the functionality and design of such computers in the future.

At the same time, the different demands of users, which vary from those who need a simple organiser to those who want a powerful replacement for their desktop personal computer, will also have an important bearing on how the market develops.

The mobile market is currently divided into three broad categories: notebooks and laptops, sub-notebooks and palm tops, and hand-held computers and organisers.

Notebooks have developed as the replacement to the desktop PC. "Two key things have contributed to make this happen," says Graham Hopper, managing director of Packard Bell UK, part of Japanese-owned Packard Bell NEC. "First is the ending of the lag between the top-end chips being available for desktop PCs before laptops. The second is the convergence of prices for the two products."

However, he believes that the traditional driving forces for this end of the market, namely size and weight, no longer apply. "There is a limit, which is being reached, as to how small users want their screens and what size they want their machines to be."

Instead, Mr Hopper believes the drivers for the notebook market in the future will be performance – faster, smarter chips – and better graphics.

Neil Dagger, a senior product manager with Compaq, the US computer group, agrees that power will be an important factor in future notebook developments. However, he also sees advances in battery technology as a key issue.

"The next generation of lithium polymer batteries will reduce the rigidity of the cell structure, which will enable batteries to be curved around the screen," he says. This would enable larger but lighter power units to be fitted.

As a result, today's average battery life of between three and five hours could be doubled. This would also contribute to thinner notebooks as the designers responded to these new developments.

Already such companies as Japan's Sony, with its Vaio range, and rival Toshiba, with its CT Portege, offer notebooks weighing between three and four pounds and measuring less than an inch wide.

Industry experts are predicting that communications integration will become an important feature for all categories of mobile computing. Notebooks will undoubtedly

New technologies will make the connection between portable computers and GSM networks seamless

feature some wireless function in order to connect to the Internet, company intranets and for electronic mail.

Mr Dagger also believes that fingerprint security will become a reality for notebooks within the next two years. Compaq has already developed a fingerprint log-in device and these will eventually be incorporated into their portable machines.

But he excludes sub-notebooks from such developments. "Compaq does not see a place for them," says Mr Dagger. "We believe that users either want the full functionality of a notebook, or the flexibility of a hand-held computer."

Packard Bell's Mr Hopper disagrees. He sees too wide a price gap between the notebook end of the market – where prices typically range from £1,500 ($900) to £2,500 – and the hand-held segment, with prices generally under £600.

He also sees a gap in the market for a computer with less functionality than a desktop PC and lighter than a notebook. Packard Bell, which supplies the retail market, is launching a computer range for allthree tiers of the mobile sector.

"In today's computer market, you have to be able to offer a full range of products, both fixed and mobile," he says. NEC, Packard Bell's parent, already serves the business portable computer market. Perhaps the most competitive of the three sectors which Packard Bell intends to enter is the hand-held computer market. This has already claimed one notable victim, namely Apple, which withdrew its Newton portable in 1997.

And Microsoft, which has been attempting to replicate the success of its PC operating system with its CE system in the hand-held arena, has also met with disappointment – although it remains committed to building its presence there.

The problem with the hand-held market is the disparate way in which the market has developed. The range of products extends from sophisticated organisers at the bottom, such as 3Com's Palm Pilot, to powerful mini-computers such asToshiba's *Libretto.*

In between are a myriad CE-powered devices from the likes of Sharp and Hewlett Packard, and the Series 5 from Psion. As a result, consumer confusion over which operating system to adopt and which product to choose has been rife.

How will this end of the market develop? Charles Davies, development director for UK-based Psion, sees developments in wireless communications as the key driver. Already, many hand-held computers have facilities to tap into GSM networks to provide data transfer services and web-browsing facilities.

Advances in industry standards and new technologies will make the connection between portable computers and GSM networks seamless. Psion, for example, recently joined forces with Motorola, Nokia and Ericsson to form Symbian, which will develop Psion's computer operating system as the standard for a new generation of mobile devices.

"Mobile phones will get smart and pocket computers will communicate and there will be a trade-off between their abilities," says Mr Davies. He believes, however, that notwithstanding any new communications capabilities, the demand for a small, flexible hand-held computer will remain.

Inventory check: in New York's Greenwich Village, Peter Corrales checks supplies by talking to his computer at his catering business, Barocco to Go. The IBM PC 300GL small business series computer, introduced this year, translates speech into text, using IBM's 'Via Voice' speech recognition technology AP

Dena Sumila, a sight-impaired employee of Sun Microsystems, uses her 'Java Ring' to withdraw money from a cash machine equipped with a screen reader for the blind, during a demonstration in New York. Sun's new Java 2 programming language allows developers to write faster applications and give them more adaptability, says the company AP

JAPAN by Paul Abrahams in Tokyo

Crisis time tests the IT sector

Not only are the big conglomerates battling the impact of the financial crisis, but they also have some acute home-grown problems to contend with

On the left-hand side, about 10 minutes before the Hitachi Super express train (built by Hitachi, of course) arrives at Hitachi City, an unfinished life-size replica dinosaur comes into view. There is no apparent explanation for this curiosity, but as a metaphor for Hitachi – and the other large Japanese electronics and electrical conglomerates – it seems worryingly apposite.

To those within the information technology industry outside Japan, the depth of the conglomerates' difficulties may come as a surprise. After all, the so-called big five – Hitachi, NEC, Toshiba, Fujitsu and Mitsubishi Electric – are global leaders in key IT components, ranging from liquid crystal displays to hard-disk drives. They are also colossal companies. For example, Hitachi's sales are equivalent to about 2 per cent of Japan's gross domestic product.

REGIONAL REPORTS

FT correspondents report from:
Japan: this page
Taiwan: page 12.
And in part two:
North America: Page 13-14.
South America: Page 14.
Europe: Page 15-16.
Russia: Page 16.

But now the conglomerates are in crisis. Hitachi has warned it will post group net losses this financial year of Y375bn ($3.26bn); NEC is expected to reveal net losses as high as Y200bn; Toshiba expects a loss of Y20bn; Mitsubishi Electric is set for a net loss of some Y40bn against previous hopes of a Y20bn profit; and Fujitsu expects to achieve Y40bn of net profits on about Y5,300bn of sales – a margin of 0.7 per cent.

True, some of the problems are not of their own making. The D-Ram sector, once the source of so much profit and currently the biggest headache for the five companies, is in a horrible downturn. Prices have collapsed. Brokers Warburg Dillon Read expect the five industrial electronics makers to post combined losses on their semi-conductor operations of Y289bn.

The conglomerates have also been hit by the depressed Japanese domestic economy, which has just suffered its fourth quarter of negative growth. All the companies are dependent on Japanese corporate capital spending, which continues to tumble; all but Fujitsu and NEC are heavily exposed to consumer electronics and have suffered accordingly.

The final blow has been the rapid appreciation of the yen, which jumped 25 per cent against the dollar last autumn. The effect was to make Japanese exports more expensive, hitting volumes and prices.

It would be tempting for management at the big five to believe their problems are merely cyclical and will disappear when the Japanese economy finally recovers. But there is a growing realisation that the current difficulties run deeper.

"We must stop blaming outside factors – economic problems, unfavourable weather, the yen or the chip cycle," says Ichiro Taniguchi, president at Mitsubishi Electric. "They do affect our company, but we cannot use them as excuses for the way we run the company."

Tachi Kiuchi, a managing director at Mitsubishi Electric, explains: "We have to realise that this is not a cyclical problem, it is structural. The economy is not going to return to a level of growth that will solve our problems.

"We must accept that what we are experiencing now is normal, not exceptional. Once we acknowledge that, then we can tackle the real issues."

At the heart of the conglomerates' problems is the systematic misallocation of capital. In the past, capital has not only been plentiful in Japan, it has been almost free.

Cash management was negligible – if a company ran short of money, it could go to the bank for more. And investment decisions were made mostly on the recommendations of engineers, rather than on the basis of rational economics.

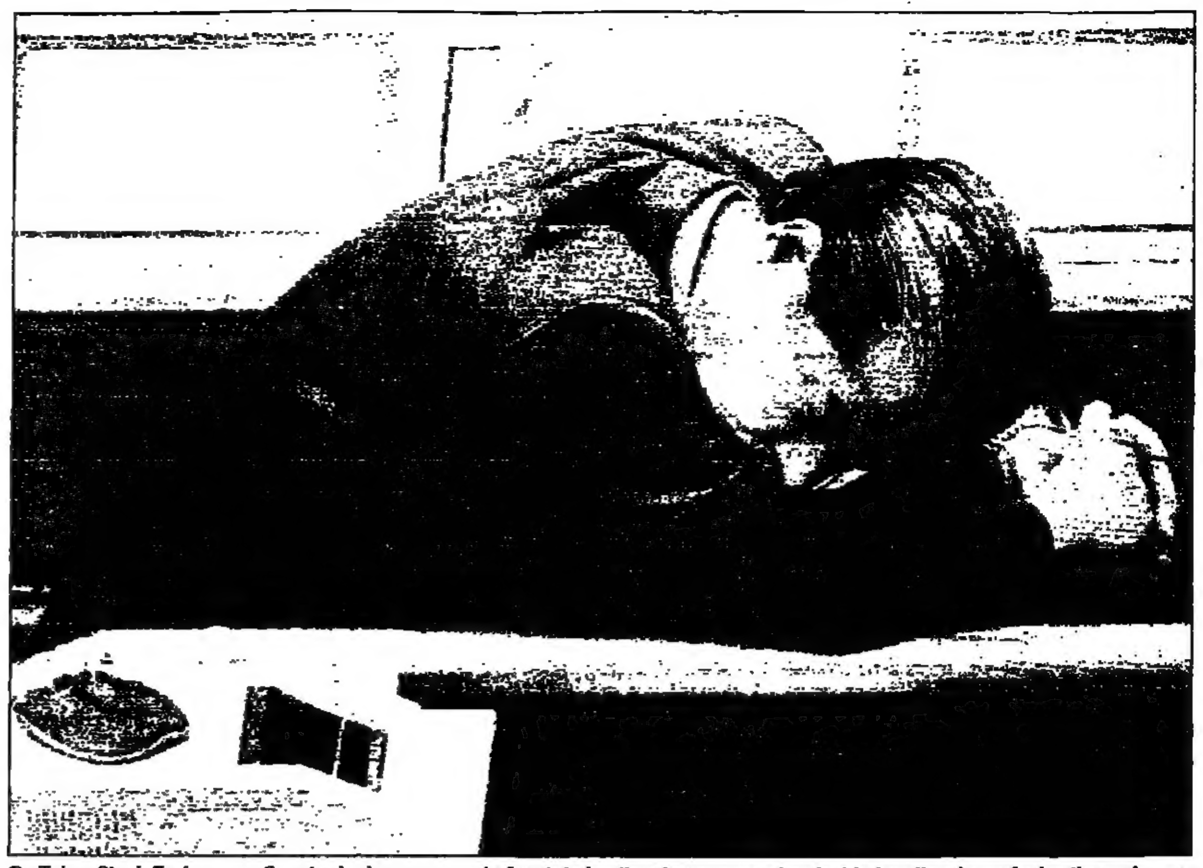
But the financial crisis has brought this to an end. Japanese banks, busy trying to rebuild their balance sheets, are much less willing to lend. The stock market is effectively closed to secondary offerings because prices have fallen so far. And the bond market is, for the first time, differentiating risk through pricing, effectively raising the cost of capital for Japanese manufacturers. Suddenly cash flow management has become a key skill.

The conglomerates are faced for the first time with the need to ration capital and are unsure how and where to invest. This is not surprising given the conflicting demands of their myriad businesses. How can Hitachi decide on the competing claims of its television business and its nuclear power operations; how can Mitsubishi Electric allocate capital between elevators and air conditioners; and how can Toshiba decide between liquid crystal displays and heavy electrical machinery?

The answer is – with difficulty. This spring, for the first time, Mitsubishi Electric is allocating its capital investment on the basis of discounted cash flow analysis. But Katsukuni Hisano, a Hitachi director in charge of the operations at Hitachi City, admits that such methods are still not used at his company. His new president, Etsuhiko Shoyama is dismissive of Economic Value Added as a financial technique, saying Japanese investors are not interested in it.

The problem is that comparing the weighted average cost of capital and the return on that capital lifts the lid on individual economic performances. And that process forces management to confront what to do with underperforming operations – to reinvest, put them into joint ventures, dispose of them or simply close them.

So far, foreign operations have proven most vulnerable. Fujitsu has closed its D-Ram plant in the UK, while Mitsubishi Electric has shut its US television operations.



On Tokyo Stock Exchange, a floor trader has a moment of rest during the afternoon session, just before the close of a hectic week AP

But in Japan, for the most part, presidents at the conglomerates have been hesitant in their responses. Officially, jobs at the non-consolidated parent companies have fallen. But this has tended to involve cutting the number of graduates hired, asking for voluntary early retirement and placing people in subsidiaries, which does nothing to reduce numbers at the group level.

Of course, lumping the companies together is not entirely fair. Not all are in the same plight. For example, Fujitsu, which is in the process of making the transition from a hardware provider to a supplier of software and services is strategically best placed, though it, too, is suffering from the D-Ram debacle and a downturn in demand for telecommunications equipment.

Moreover, the response among the conglomerates' leadership has been varied. Hitachi under its new president Mr Shoyama is moving slowly, despite its huge problems, but is under least pressure because it has net cash on its balance sheet. Toshiba, by contrast, under its president Taizo Nishimuro, has been the most dynamic.

Mr Nishimuro has has announced that a third of the company's businesses will be restructured, put into joint-ventures or sold. In recent months he has concluded a string of deals. And Fujitsu moved quickly to close its loss-making D-Ram plant at Durham, in the UK.

But the scale of the restructuring does not match the size of the problem. Toshiba, Hitachi and NEC are still making televisions – almost certainly at a loss – even if the latter is focusing on added-value high-technology sets.

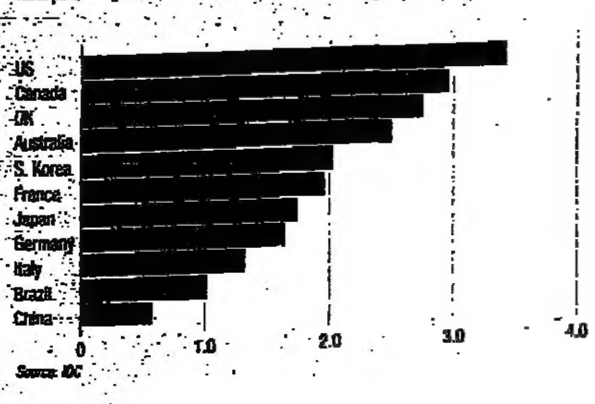
So far, Japan's foreign operations have proven most vulnerable

Part of the problem is that even when senior executives are fully aware of the gravity of the crisis, they then have to achieve a consensus within their company if they are to achieve reform.

For the moment, that seems to be beyond the ability of most Japanese presidents. The danger is that unless the electronics conglomerates can evolve, they could indeed turn into dinosaurs.

Anxious times: Tokyo dealers in full cry AP

Global IT spending
As a percentage of GDP



Source: IDC

TAIWAN by Mure Dickie in Taipei

Scanning the marketplace

With a sharp focus on profits rather than prestige, the IT sector has become a vital support for the country's economy

Taiwanese companies are the world's leading producers of scanners, keyboards and notebook computers and, as such, continue to dominate the hardware sector. Anyone who doubts the significance of Taiwan's role in information technology should try finding a scanner made by a company from anywhere else. It may not prove to be an easy task.

Taiwanese companies, according to the island's Market Intelligence Centre, now produce more than four out of every five scanners. In addition, they also seem to hog the world market for keyboards, mice and monitors and an estimated 40 per cent of the notebook computers sector.

That success in muscling into important market niches has largely been cloaked in the anonymity of original equipment manufacturer (OEM) contracts that put Taiwan's wares under the brands of companies from elsewhere. But the focus on profit, rather than prestige, has helped to turn the information technology industry into a pillar of the island's economy.

Taiwan's large pool of trained engineers, many of whom have worked in the US and retain close links with Silicon Valley, has been absorbed into an entrepreneurial business culture blessed with ready access to capital and a highly sympathetic tax regime.

Companies such as Quanta Computer have made the most of those opportunities. Last year, Quanta produced 1.31m notebook computers for clients which included Dell and Gateway, making it Taiwan's top notebook producer. The 10-year-old enterprise likes to compare its strategy of conservative advance to that of a turtle, but its aggressive ambition to be the world's top notebook producer by 2000 helped it win a rapturous market welcome for its initial public offering in January.

Notebook computers are a key product, since they still command healthy profit margins. Elsewhere in the industry, opportunities to add value are growing scarcer, a trend that perhaps poses Taiwanese companies their greatest challenge.

The commoditisation of PC components allowed nimble enterprises to win market share by churning out products faster and at lower cost than rivals overseas. However, a willingness to trade margins for sales can make the process self-defeating. Indeed, Taiwan's dominance of the scanner market is scant comfort for producers caught in fierce rounds of price-cutting that have slashed returns.

Companies making ever more standardised components need to find other ways to set themselves apart, says Ben Lin, managing director of Infopower, which monitors the Taiwan IT industry.

"In the next 18 months, hardware differentiation could be all gone," he says. "It's very challenging for them to figure out differentiation strategies."

In an effort to cut costs, many companies have shifted production away from the island, particularly to mainland China, where cheap labour and a vast potential market are attractive lures. Offshore production accounted for more than a third of Taiwanese information technology companies' estimated US$33.8bn in hardware output value in 1998, Market Intelligence Centre data shows.

China accounts for the lion's share of offshore production, although most of the output from plants on the mainland is in lower-tech areas such as monitors, keyboards and PC assembly.

Aside from moving offshore, OEM companies are adding value by expanding into both design and distribution. Marketing skills are being polished in the hope of increasing the number of companies selling under their own brands.

Opportunities

The growth of the Internet has brought opportunities in the service and software sectors, where Taiwanese companies have traditionally been weak. Trend Micro, an anti-virus software company, uses the Internet to provide services, and there has been a proliferation of Taiwan-based search engines and reference sites.

At the other end of the production line, Taiwan's semiconductor producers are familiar with the pain that plunging prices can cause. Declines caused by excess capacity, particularly for D-Ram memory chips, have sliced profits in recent years.

Even Taiwan Semiconductor Manufacturing, a foundry business that makes chips to order and benefits from the relative stability of the logic chip market, is not immune. TSMC, the world's biggest foundry producer, estimates that profits fell 14.6 per cent in 1998.

Company chairman Morris Chang ruefully compares his industry's lack of discipline after years of price "slaughter" with the resolve of seven investment banks that competed for his custom nine years ago. "Every one of them wanted business, but none of them wanted to reduce their price," he says. "We haven't been able to achieve that yet in the foundry business."

TSMC and Taiwanese rival United Microelectronics (UMC) account for about two-thirds of the world independent foundry chip market. Both foundries stand to benefit greatly from the recent strength of chip prices, as do major memory chip producers such as Winbond Electronics.

Don Floyd, an analyst at ING Barings in Taipei, says aggressive investment by Taiwanese integrated circuit producers has left them well placed to expand market share at the expense of South Korea and Japan, a trend supported by Japanese companies' new-found enthusiasm for outsourcing chip production on the island.

"The Taiwanese are actually the fastest growing IC industry in the world," says Mr Floyd, adding that the agility of Taiwan's companies gives them an edge over their more ungainly competitors to the north.

Firmer chip prices are a boon for Acer Semiconductor, which has appeared less nimble than some competitors. The venture has suffered a string of losses, but could take advantage of improved returns from its memory chips in 1999 to ease a shift toward custom-made logic chips. Acer Semiconductor's parent, the Acer computer group, is Taiwan's best-known technology company; however, it has been battling narrowing margins and a declining brand profile.

Acer is now moving its focus from assembly to higher return markets and is developing a range of application-specific computers, dubbed XCs, that are intended to be more reliable and user-friendly than ordinary PCs.

The company says its XCs will be based on PC architecture and will range from computers for the under-fives to video mail boxes that will allow users to film messages and send them to friends and family over the Internet.

Watchful eye in Taipei: an investor scrutinises stock prices on a computer screen at a Taiwan dealer's office. In the IT sector, the growth of the internet has boosted service and software companies AP

MEASURING RETURNS ON IT by Andrew Fisher

Is the effort worthwhile?

Keeping up with new technology is demanding and costly, but many companies face oblivion if they do not try their hardest

Trying to measure the impact of information technology on business performance is a task that has tried the skills and patience of some of the world's best economic thinkers. Their frustrations were succinctly expressed by Robert Solow, the Nobel prize-winning US economist, who said: "You can see the computer age everywhere but in the productivity statistics."

Even the most innovative companies agree that it is extremely hard to assess the effect of IT spending. But they feel that the prospective benefits should be the main investment consideration rather than slide-rule accountancy calculations.

"The business case should drive major IT spending decisions," says John Ellice-Flint, a senior vice-president at Unocal, the big US-based oil and gas producer.

Louis Lavigne, chief financial officer at Genentech, the biotechnology company, also believes it is not always appropriate to evaluate strategic IT purchases in strictly financial terms. "Sometimes, something is just so right qualitatively, there is no more question about it."

These views and those of other IT-minded executives are part of a new study by IBM's global services consulting group and the Economist Intelligence Unit. Called *Assessing the strategic value of information technology*, it seeks to show that strategic IT investment is unavoidable for companies wanting to attain or keep leading market positions.

"Emerging applications of IT are fundamentally transforming a number of industries" at the threshold of the 21st century, the report says. "In many cases, the focus is on using technology as the fulcrum in value delivery."

While the study found big differences between IT front-runners and laggards – with many of the former in financial services and retailing – most executives surveyed were satisfied that IT boosts productivity; 82 per cent thought the results satisfactory or excellent. Yet companies have widely varying policies on the question of how to monitor IT's impact – "basic instinct" is used about as often as traditional return on investment analysis.

"People now understand that quantitative, financial metrics cannot capture the true value of a communications tool or process improvement that supports breakthrough R&D or encourages customer satisfaction," the report says. Today, executives increasingly want to know how IT investments can propel growth strategies.

Yet there are still many "unfocussed companies," unsure of what IT can offer and bewildered by the huge array of products and services available. Chuck Rieger of IBM global services says around 16 per cent of companies surveyed for the report do not have an IT strategy.

"They see IT as hard to work with and too expensive." Of those who do invest in IT, nearly half concentrate on so-called "foundation value" in which the investment is aimed at automating basic business processes. Less than 10 per cent focus on "innovation value", in which IT is applied to strategic aims such as winning new domestic and foreign customers through the worldwide web.

Problems of implementing new IT systems

Most objections to a thorough-going IT policy centre on the time it takes to implement new systems. Companies are also put off by the inflexibility of their existing systems and the daunting task of training and supporting employees in the use of new equipment and software programmes.

Mr Rieger believes these obstacles can be overcome if companies strive to keep up with the impact of new technology on their operations, absorb changes in IT quickly, support staff effectively and actively manage technology to help create competitive advantage.

This is clearly easier said than done, but the evidence is that customers mostly respond positively. Nearly 90 per cent of senior executives questioned believe customer resistance to IT is not a problem.

Even so, the problem of measuring IT's benefits remains. "The hardest thing in business to measure is IT value," says Neil Bardach, an executive with Genlyte, a US lighting products company. "In fact, we don't try to measure IT value. We do, however, identify the intangible values IT affords, and we try to keep the cost of IT within a range of percentage of sales that we find manageable."

Quoted in the report, he says Genlyte tries to measure the return on specific IT investments. It asks whether new systems allow more business to be done with fewer people or less overtime. If costs do not fall, do they at least not rise? Can better quality information be obtained sooner or be made more accessible? Can administrative costs be kept down? "If we can answer 'yes' to one or more of these, we'll invest in the system," Mr Bardach states.

The IBM/EIU report is part of a wider study with University of California at Irvine and the Massachusetts Institute of Technology on the role of IT in the economy. Mr Rieger says preliminary findings show that across developed countries, IT accounts for 5.5 per cent of total investment, contributing 35 per cent to growth in gross domestic product and 55 per cent to labour productivity growth.

For companies, overall returns on IT investment can be extremely high, he adds. Many clearly remain to be convinced, but the relentless progress of IT in industry and society may soon compel them to think again.

BUSINESS PROCESS OUTSOURCING

Helping councils to improve services and cut costs

The market for business process outsourcing is growing at 30 per cent a year, compared with 20 per cent for conventional outsourcing. "A lot of the impetus for BPO is coming from the public sector," says Bridget Blow, chief executive of ITNet.

Local government, which has focused on IT outsourcing since the late 1980s, is now moving into outsourcing back-office functions such as payroll, revenue collection and benefits administration, she says.

In the UK, the main drivers are cost and the government's Best Value initiative, designed to improve local councils' service levels. "For example," adds Ms Blow, "some councils still take 15 minutes to answer the phone."

This problem is certainly not limited to Britain. Many local and regional authorities have similar potential for improvement, she says. But projects might have to be managed in a slightly different style due to restrictive employment rules in some countries.

Potential

In Ms Blow's experience, commercial companies are still wary of outsourcing business processes. "Being able to specify the inputs and outputs of a process appeals to board members," she says. "But the reality is that it hasn't really taken off in the commercial sector yet."

However, she does not think these projects are any more difficult to manage than IT projects. ITNet, which receives 50 per cent of its business from the public sector, is involved in 21, including revenue projects for two London councils, Hackney and Islington.

Business process and IT outsourcing are similar because an outsourcing company trying to improve a process will usually put in new IT at some point, she says.

Other growth areas in outsourcing include managing a company's PCs and software and implementing enterprise resource planning systems such as those from SAP and Baan. "We get a lot of new business in the desktop services area because this is hard to provide well in-house," she says. "Every time software changes, you need new skills, and a small in-house team can find it hard to keep up."

ITNet provides a call centre-based telephone support service that sorts out nearly 50 per cent of problems on the first call.

"If you do a good job in this area, which means understanding the hardware and software, the customer's business and the business impact of the problem, you can usually pick up other work from the customer," Ms Blow believes.

What is different about ITNet, apart from the fact that it is one of the few FTSE companies run by a woman? Certainly not the fact that there is only one woman on the board – Ms Blow herself.

The company is fairly informal and has twice-yearly briefings in groups of 50 staff where employees can chat to her about absolutely anything they want. Ms Blow believes that "the open style is appreciated and good ideas often come out of these meetings".

ITNet also prides itself on its people management skills. Ms Blow tells company boards: "I will get the most out of your staff, together with my existing staff, because we have strong human resources policies."

Staff transferred to ITNet from companies that have outsourced their IT are put through a half-day series of tests. Some are promoted because they are good technically. Others are shuffled around the team. "This improves performance immediately," she says.

"We also have a lot of meetings with staff to help them understand how it is different being part of a services business to working in-house. And we are willing to move people out of IT roles and into sales and marketing if they show aptitude for other areas."

In fact, Ms Blow was once a human resources director – at FI Group, the software company founded by a woman, Steve Shirley. Ms Blow also had other line management positions within the company.

As human resources director she got involved with 'the people side' of mergers and acquisitions, assessing skills and making acquired staff feel more confident about their new organisation.

So, when a headhunter called and asked if she would like to do something similar – helping to move outsourced staff across to ITNet, then part of Cadbury-Schweppes – she jumped at the chance.

In the summer of 1995, Cadbury-Schweppes decided to sell ITNet after buying Dr Pepper, the drinks company, some time earlier. Ms Blow, then managing director of ITNet, put the case for a management buyout, which Cadbury accepted. Negotiating this complex deal with Cadbury and with venture capitalists was one of the most challenging moments of her career because she felt responsible for the company's 1,000 staff.

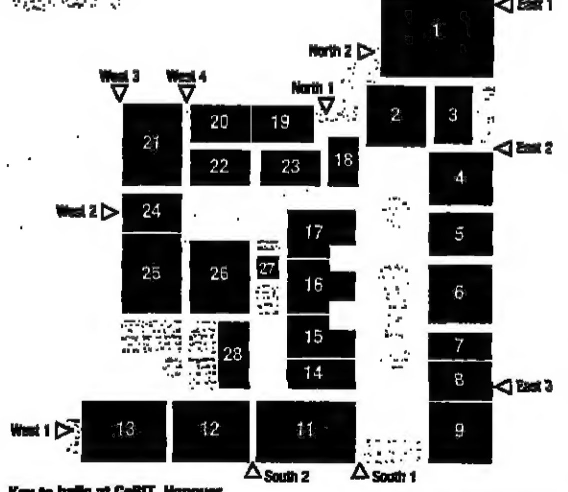
The buyout, in November, 1995, was a success and last June, ITNet floated on the stock market after increasing sales by 20 per cent a year for the previous five years.

"One of the reasons we floated was to make some investments," she says. "We are interested in mainland Europe, so we are talking to customers about what they would like us to do there. We might share a customer's premises or set up our own offices."

The company has already participated in a number of overseas projects in the US, Poland and North Africa.

Joia Shillingford

Bridget Blow of ITNet: 'Changing software systems demand new skills'



Key to halls at CeBIT, Hanover

Information technology	1, 6, 7, 8, 9, 12, 13
Office automation	1
Software consulting and services	1, 2, 3, 4, 5, 6
Network computing	11
Telecommunications	14, 15, 16, 17, 24, 25, 26, 27, 28
Bank technology	18
Automatic data collection	19, 20
Engineering, design, automation, management	20, 21, 22
Card technology and security equipment	23

CeBIT '99, the world's biggest IT show

More than 7,500 companies from 63 countries will be exhibiting at this month's seven-day CeBIT'99 show, located in 28 halls at the Hanover showground, Germany.

Among the exhibitors at this record-breaking event from March 18-24, will be 2,862 companies from outside Germany, with 304 from Britain, 434 from the US and 525 from Taiwan. The IT category – the show's largest – will feature displays by 1,500 companies. Telecom systems will cover seven halls, making this the largest-ever telecoms display for the annual CeBIT event.

More details about CeBIT, can be obtained via telephone +49 511/89-0, fax 49-511/89-336 36, or see the web site http://www.cebit.de

Michael Wiltshire

Announcing the awards: Michael Wills, centre, with Lord Blackwell, right, and Eric Guilloteau

Cash prizes with new e-commerce awards

Prizes worth a total of £126,000 are being offered in a joint award by the Information Society Initiative, which promotes the use of IT by British businesses, and InterForum, the UK advisory group that helps companies to trade electronically. Pictured here are Michael Wills, centre, the minister for small firms, discussing the awards with principal sponsors Eric Guilloteau, general manager of E-Business BT, left, and Lord Blackwell of NatWest bank. More details from InterForum on tel. 01784 473005 or via the web site, http://www.interforum.org

A TRILLION DOLLAR INDUSTRY

The next big wave

From page one:

among the industry leaders were the main drivers behind the surge in merger and acquisition activity in the IT, communications and media industries last year.

According to Broadview, the specialist IT investment banking group, the value of M&A deals rose to $489bn in 1998, an increase of 87 per cent on the year before.

Big deals valued at over $1bn drove the trend, according to the report. The number of such deals rose from four in 1992 to 43 last year, according to Paul Deninger, Broadview's chairman. Eight of the 10 largest deals were in North America, where the total was $393bn.

But European transactions also rose strongly, by 37 per cent to $95.7bn. The telecoms sector was the most active as market liberalisation and the convergence of voice and data networks drove rapid consolidation.

Within the IT sector itself these large deals, culminating last year in Compaq Computer's $9.6bn purchase of Digital Equipment, are helping to determine the shape of enterprise computing for the next decade and creating an elite group of industry leaders, each with a commanding position in its segment of the $1,000bn-a-year IT industry.

Each of the main IT market segments is now dominated by a single company or small group of companies. Cisco, for example, has emerged as the unchallenged networking market leader and Compaq extended its PC market lead last year.

Intel, despite losing market share in the sub-$1,000 PC market category last year to AMD and National Semiconductor's Cyrix unit, still supplies the microprocessors for the vast bulk of business PCs, and Microsoft, despite the continuing anti-trust trial, remains the world's largest software vendor.

What is more, these US companies all share a common strategy – they are seeking to deliver products that span the whole range of customer requirements. Thus, Compaq's acquisition first of Tandem Computer and then Digital, has enabled the group to leapfrog the competition to become the second largest full range computer group behind International Business Machines.

Similarly, Intel wants its microprocessors to power everything from entry-level PCs to large, complex multi-node servers and Microsoft believes its operating systems should run in everything from cars and hand-held devices to big corporate server clusters.

These market leaders also share another vision which is likely to be reflected in their presentations and stands at this month's CeBIT information technology business fair in Hanover, Germany. As Compaq's Mr Pfeiffer said in London last month: "Our vision is a world where virtually all information is online and people have secure access to the information they need from anywhere, at anytime."

Fulfilling that vision will require the next step in the convergence process – integrating mobile telephony to build high-speed, wireless IP networks. This, coupled with broadband delivery systems for home and business, may well drive the next IT wave.